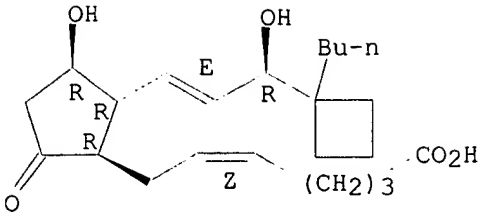
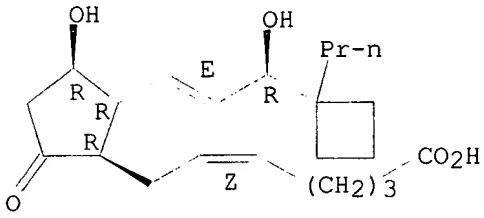


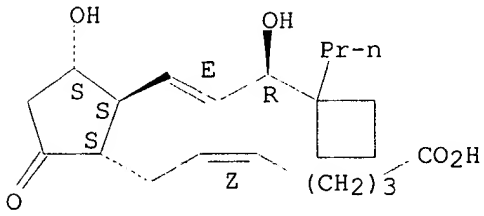
RN 63357-25-5 HCAPLUS
CN 5-Heptenoic acid, 7-[3-hydroxy-2-[3-hydroxy-3-(1-propylcyclobutyl)-1-propenyl]-5-oxocyclopentyl]-, [1.alpha.(Z),2.beta.(1E,3R*),3.alpha.]-(9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.

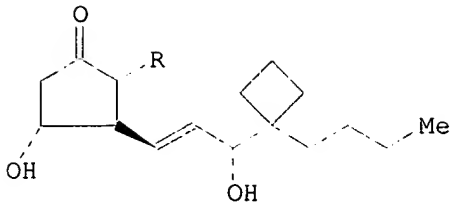


RN 63357-26-6 HCAPLUS
CN 5-Heptenoic acid, 7-[3-hydroxy-2-[3-hydroxy-3-(1-propylcyclobutyl)-1-propenyl]-5-oxocyclopentyl]-, [1.alpha.(Z),2.beta.(1E,3S*),3.alpha.]-(9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.



L115 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2002 ACS
AN 1977:463008 HCAPLUS
DN 87:63008
TI Prostaglandins and congeners. 14. Synthesis and bronchodilator activity of dl-16,16-**trimethyleneprostaglandins**
AU Skotnicki, Jerauld S.; Schaub, Robert E.; Weiss, Martin J.; Dessy, F.
CS Lederle Lab., Am. Cyanamid Co., Pearl River, N. Y., USA
SO J. Med. Chem. (**1977**), 20(8), 1042-7
CODEN: JMCMAR
DT Journal
LA English
CC 2-3 (Hormone Pharmacology)
Section cross-reference(s): 24
GI



I, R=$(CH_2)_6CO_2H$
II, R=z-CH=CH$(CH_2)_3CO_2H$

AB A series of 33 title compds. was prepd. by the lithiocuprate conjugate addn. of a fully elaborated .beta. chain to the several cyclopentenones with varying .alpha. chains. The bronchodilator effect of the compds. was detd. by i.v. administration to guinea pigs previously treated with serotonin, histamine, or acetylcholine. The most active compds., dl-16,16-**trimethyleneprostaglandin** E1 (I) [63357-23-3] and dl-16,16-**trimethyleneprostaglandin** E2 (II) [**62446-43-9**], gave results comparable to l-prostaglandin E1. Structure-activity relations are discussed.

ST bronchodilator prostaglandin cyclic **trimethylene** analog; **trimethyleneprostaglandin** analog bronchodilator

IT Bronchodilators
(prostaglandin cyclic **trimethylene** analogs)

IT Molecular structure-biological activity relationship
(bronchodilating, of prostaglandin cyclic **trimethylene** analogs)

IT Prostaglandins
RL: SPN (Synthetic preparation); PREP (Preparation)
(cyclic **trimethylene** analogs, prepn. and bronchodilator activity of)

IT 41264-03-3 50999-85-4
RL: RCT (Reactant)
(alkylation of)

IT 40899-59-0
RL: RCT (Reactant)
(oxidn. of)

IT 40098-44-0P 63295-68-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and alkylation of)

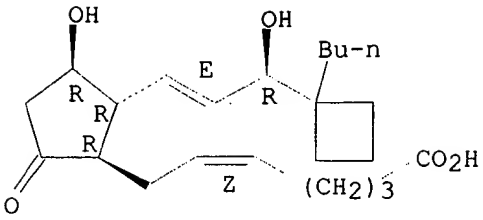
IT 363-24-6DP, cyclic **trimethylene** analog 745-65-3DP, cyclic **trimethylene** analog 62407-92-5P 62446-40-6P 62446-41-7P **62446-42-8P 62446-43-9P** 63295-70-5P 63295-71-6P 63295-72-7P 63295-73-8P 63295-74-9P 63295-75-0P 63295-76-1P 63295-77-2P 63295-78-3P 63295-79-4P 63295-80-7P 63295-81-8P 63357-23-3P 63357-24-4P **63357-25-5P 63357-26-6P** 63357-27-7P 63357-28-8P 63357-29-9P 63357-30-2P 63357-31-3P 63357-32-4P 63357-33-5P 63357-34-6P 63357-35-7P 63357-36-8P 63492-48-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and bronchodilator activity of)

IT 63295-67-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and cyclopentenone deriv. alkylation by)

IT 40899-63-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and esterification of)

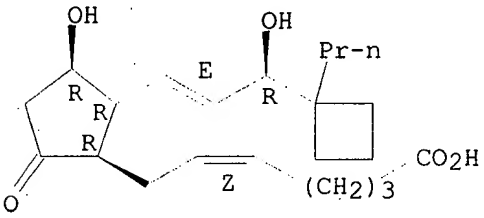
IT 63295-69-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and hydrolysis of)

IT 63295-66-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)



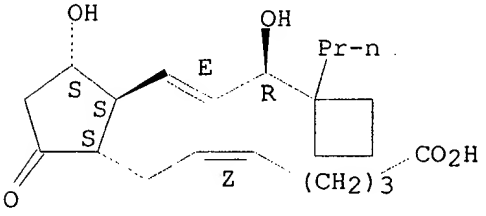
RN 63357-25-5 HCAPLUS
CN 5-Heptenoic acid, 7-[3-hydroxy-2-[3-hydroxy-3-(1-propylcyclobutyl)-1-propenyl]-5-oxocyclopentyl]-, [1.alpha.(Z),2.beta.(1E,3R*),3.alpha.]-(9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.

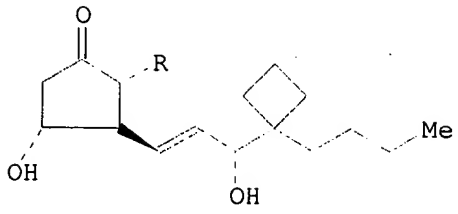


RN 63357-26-6 HCAPLUS
CN 5-Heptenoic acid, 7-[3-hydroxy-2-[3-hydroxy-3-(1-propylcyclobutyl)-1-propenyl]-5-oxocyclopentyl]-, [1.alpha.(Z),2.beta.(1E,3S*),3.alpha.]-(9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.



L115 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2002 ACS
AN 1977:463008 HCAPLUS
DN 87:63008
TI Prostaglandins and congeners. 14. Synthesis and bronchodilator activity of dl-16,16-**trimethyleneprostaglandins**
AU Skotnicki, Jerauld S.; Schaub, Robert E.; Weiss, Martin J.; Dessy, F.
CS Lederle Lab., Am. Cyanamid Co., Pearl River, N. Y., USA
SO J. Med. Chem. (**1977**), 20(8), 1042-7
CODEN: JMCMAR
DT Journal
LA English
CC 2-3 (Hormone Pharmacology)
Section cross-reference(s): 24
GI



I, R=$(CH_2)_6CO_2H$

II, R=z-CH=CH$(CH_2)_3CO_2H$

AB A series of 33 title compds. was prepd. by the lithiocuprate conjugate addn. of a fully elaborated .beta. chain to the several cyclopentenones with varying .alpha. chains. The bronchodilator effect of the compds. was detd. by i.v. administration to guinea pigs previously treated with serotonin, histamine, or acetylcholine. The most active compds., dl-16,16-**trimethyleneprostaglandin** E1 (I) [63357-23-3] and dl-16,16-**trimethyleneprostaglandin** E2 (II) [**62446-43-9**], gave results comparable to l-prostaglandin E1. Structure-activity relations are discussed.

ST bronchodilator prostaglandin cyclic **trimethylene** analog; **trimethyleneprostaglandin** analog bronchodilator

IT Bronchodilators
(prostaglandin cyclic **trimethylene** analogs)

IT Molecular structure-biological activity relationship
(bronchodilating, of prostaglandin cyclic **trimethylene** analogs)

IT Prostaglandins
RL: SPN (Synthetic preparation); PREP (Preparation)
(cyclic **trimethylene** analogs, prepn. and bronchodilator activity of)

IT 41264-03-3 50999-85-4
RL: RCT (Reactant)
(alkylation of)

IT 40899-59-0
RL: RCT (Reactant)
(oxidn. of)

IT 40098-44-0P 63295-68-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and alkylation of)

IT 363-24-6DP, cyclic **trimethylene** analog 745-65-3DP, cyclic **trimethylene** analog 62407-92-5P 62446-40-6P 62446-41-7P **62446-42-8P 62446-43-9P** 63295-70-5P 63295-71-6P
63295-72-7P 63295-73-8P 63295-74-9P 63295-75-0P 63295-76-1P
63295-77-2P 63295-78-3P 63295-79-4P 63295-80-7P 63295-81-8P
63357-23-3P 63357-24-4P **63357-25-5P 63357-26-6P**
63357-27-7P 63357-28-8P 63357-29-9P 63357-30-2P 63357-31-3P
63357-32-4P 63357-33-5P 63357-34-6P 63357-35-7P 63357-36-8P
63492-48-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and bronchodilator activity of)

IT 63295-67-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and cyclopentenone deriv. alkylation by)

IT 40899-63-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and esterification of)

IT 63295-69-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and hydrolysis of)

IT 63295-66-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)

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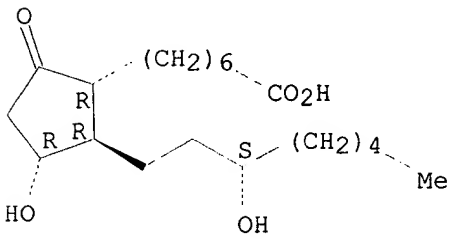
L171 ANSWER 1 OF 9 REGISTRY COPYRIGHT 2002 ACS
RN 19313-28-1 REGISTRY
CN Prostan-1-oic acid, 11,15-dihydroxy-9-oxo-, (11.alpha.,15S)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Cyclopentaneheptanoic acid, 3-hydroxy-2-(3-hydroxyoctyl)-5-oxo-, stereoisomer (8CI)
OTHER NAMES:
CN (15S)-Dihydroprostaglandin E1
CN 11,15-Dihydroxy-9-ketoprostanoic acid
CN 11.alpha.,15-Dihydroxy-9-oxoprostanoic acid
CN 13,14-Dihydro-PGE1
CN 13,14-Dihydroprostaglandin E1
CN Dihydro-PGE1
CN Dihydroprostaglandin E1
CN PGE0
CN **prostaglandin E0**
CN U 23307
FS STEREOSEARCH
DR 23923-86-6, 19338-39-7, 23452-94-0, 23621-67-2, 5094-13-3, 28527-86-8
MF C20 H36 O5
CI COM
LC STN Files: BEILSTEIN*, BIOSIS, BIOTECHNO, CA, CAOLD, CAPLUS, CHEMCATS, CSCHEM, EMBASE, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, TOXCENTER, USPATFULL
(*File contains numerically searchable property data)

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

97 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
97 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 137:333176

REFERENCE 2: 137:88720

REFERENCE 3: 136:145563

REFERENCE 4: 136:694

REFERENCE 5: 135:231699

REFERENCE 6: 135:190765

Jan Delaval
Reference Librarian
Biotechnology & Chemical Library
CM1 1E07 – 703-308-4498
jan.delaval@uspto.gov

REFERENCE 7: 135:147536

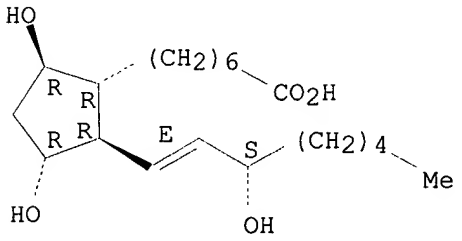
REFERENCE 8: 135:56407

REFERENCE 9: 135:29385

REFERENCE 10: 133:271683

L171 ANSWER 2 OF 9 REGISTRY COPYRIGHT 2002 ACS
RN 10164-73-5 REGISTRY
CN Prost-13-en-1-oic acid, 9,11,15-trihydroxy-, (9.beta.,11.alpha.,13E,15S)-(9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Cyclopentaneheptanoic acid, 3,5-dihydroxy-2-(3-hydroxy-1-octenyl)-, stereoisomer (8CI)
OTHER NAMES:
CN PGF1.beta.
CN **Prostaglandin F1.beta.**
FS STEREOSEARCH
DR 21562-48-1, 28977-21-1
MF C20 H36 O5
CI COM
LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, CHEMCATS, CSCHEM, DDFU, DRUGU, IFICDB, IFIPAT, IFIUDB, MEDLINE, NAPRALERT, TOXCENTER, USPATFULL
(*File contains numerically searchable property data)

Absolute stereochemistry.
Double bond geometry as shown.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

64 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
64 REFERENCES IN FILE CAPLUS (1962 TO DATE)
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 128:132260

REFERENCE 2: 115:223767

REFERENCE 3: 109:92548

REFERENCE 4: 101:222865

REFERENCE 5: 101:129876

REFERENCE 6: 97:72140

REFERENCE 7: 96:15330

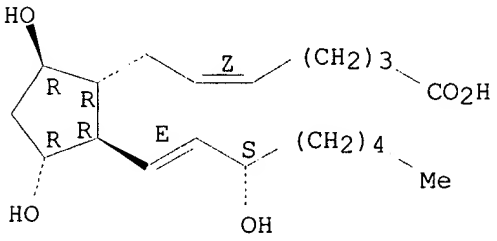
REFERENCE 8: 96:976

REFERENCE 9: 96:975

REFERENCE 10: 95:164870

L171 ANSWER 3 OF 9 REGISTRY COPYRIGHT 2002 ACS
RN 4510-16-1 REGISTRY
CN Prosta-5,13-dien-1-oic acid, 9,11,15-trihydroxy-, (5Z,9.beta.,11.alpha.,13E,15S)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 5-Heptenoic acid, 7-[3,5-dihydroxy-2-(3-hydroxy-1-octenyl)cyclopentyl]-, stereoisomer (8CI)
OTHER NAMES:
CN 7-[3.alpha.,5.beta.-Dihydroxy-2-(3-hydroxy-1-octenyl)cyclopentyl]-5-heptenoic acid
CN 9.beta.,11.alpha.-PGF2.alpha.
CN PGF2.beta.
CN **Prostaglandin F2.beta.**
FS STEREOSEARCH
DR 89847-01-8
MF C20 H34 O5
CI COM
LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, CHEMCATS, CHEMLIST, CSCHEM, DDFU, DRUGU, IFICDB, IFIPAT, IFIUDB, MEDLINE, RTECS*, TOXCENTER, USPATFULL
(*File contains numerically searchable property data)

Absolute stereochemistry.
Double bond geometry as shown.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

163 REFERENCES IN FILE CA (1962 TO DATE)
3 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
164 REFERENCES IN FILE CAPLUS (1962 TO DATE)
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 135:147536

REFERENCE 2: 135:730

REFERENCE 3: 134:361713

REFERENCE 4: 133:161954

REFERENCE 5: 133:924

REFERENCE 6: 131:295642

REFERENCE 7: 131:252650

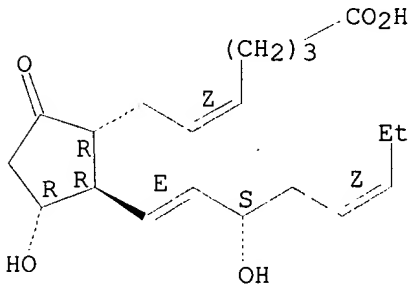
REFERENCE 8: 130:320932

REFERENCE 9: 130:205253

REFERENCE 10: 130:119579

L171 ANSWER 4 OF 9 REGISTRY COPYRIGHT 2002 ACS
RN 802-31-3 REGISTRY
CN Prosta-5,13,17-trien-1-oic acid, 11,15-dihydroxy-9-oxo-, (5Z,11.alpha.,13E,15S,17Z)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 5-Heptenoic acid, 7-[3-hydroxy-2-(3-hydroxy-1,5-octadienyl)-5-oxocyclopentyl]-, stereoisomer (8CI)
OTHER NAMES:
CN (-)-Prostaglandin E3
CN PGE3
CN **Prostaglandin E3**
FS STEREOSEARCH
MF C20 H30 O5
CI COM
LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CHEMCATS, CSCHEM, DDFU, DRUGU, EMBASE, IFICDB, IFIPAT, IFIUDB, MEDLINE, NAPRALERT, TOXCENTER, USPATFULL
(*File contains numerically searchable property data)

Absolute stereochemistry.
Double bond geometry as shown.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

155 REFERENCES IN FILE CA (1962 TO DATE)
4 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
155 REFERENCES IN FILE CAPLUS (1962 TO DATE)
11 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 137:333176

REFERENCE 2: 137:307621

REFERENCE 3: 137:246360

REFERENCE 4: 137:195936

REFERENCE 5: 136:406871

REFERENCE 6: 136:145563

REFERENCE 7: 136:64154

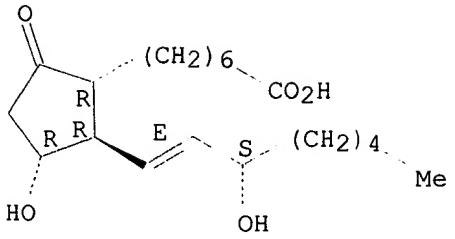
REFERENCE 8: 136:17461

REFERENCE 9: 135:231699

REFERENCE 10: 135:147536

L171 ANSWER 5 OF 9 REGISTRY COPYRIGHT 2002 ACS
RN 745-65-3 REGISTRY
CN Prost-13-en-1-oic acid, 11,15-dihydroxy-9-oxo-, (11.alpha.,13E,15S)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Cyclopentaneheptanoic acid, 3-hydroxy-2-(3-hydroxy-1-octenyl)-5-oxo-, (-)- (8CI)
CN Cyclopentaneheptanoic acid, 3.alpha.-hydroxy-2-(3-hydroxy-1-octenyl)-5-oxo- (7CI)
OTHER NAMES:
CN (-)-Prostaglandin E1
CN 11.alpha.,15(S)-Dihydroxy-9-oxo-13-trans-prostenoic acid
CN 11.alpha.,15.alpha.-Dihydroxy-9-oxo-13-trans-prostenoic acid
CN Alprostadil
CN Alprox TD
CN Caverject
CN l-PGE1
CN l-Prostaglandin E1
CN Lipoprost
CN ONO 1608
CN Palux
CN PGE1
CN **Prostaglandin E1**
CN Prostandin
CN Prostandin 500
CN SEPA-alprostadil
CN SEPA-PGE1
CN SEPA-prostaglandin E1
CN Topiglan
CN U 10136
FS STEREOSEARCH
DR 50-83-9, 22299-37-2, 50865-30-0
MF C20 H34 O5
CI COM
LC STN Files: ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMLIST, CIN, CSCHEM, DDFU, DIOGENES, DRUGNL, DRUGPAT, DRUGU, DRUGUPDATES, EMBASE, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NAPRALERT, NIOSHTIC, PHAR, PHARMASEARCH, PROMT, RTECS*, SPECINFO, TOXCENTER, USAN, USPAT2, USPATFULL, VETU
(*File contains numerically searchable property data)
Other Sources: EINECS**, WHO
(**Enter CHEMLIST File for up-to-date regulatory information)

Absolute stereochemistry.
Double bond geometry as shown.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

8388 REFERENCES IN FILE CA (1962 TO DATE)
140 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
8393 REFERENCES IN FILE CAPLUS (1962 TO DATE)
2 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 137:336101

REFERENCE 2: 137:333176

REFERENCE 3: 137:320617

REFERENCE 4: 137:289308

REFERENCE 5: 137:284137

REFERENCE 6: 137:276102

REFERENCE 7: 137:268473

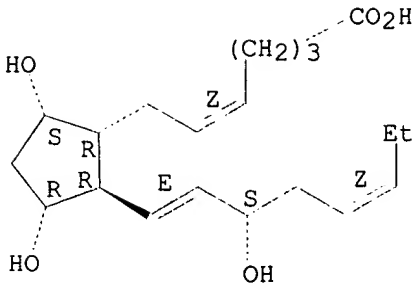
REFERENCE 8: 137:268468

REFERENCE 9: 137:268402

REFERENCE 10: 137:261859

L171 ANSWER 6 OF 9 REGISTRY COPYRIGHT 2002 ACS
RN 745-64-2 REGISTRY
CN Prosta-5,13,17-trien-1-oic acid, 9,11,15-trihydroxy-, (5Z,9.alpha.,11.alpha.,13E,15S,17Z)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 5-Heptenoic acid, 7-[3,5-dihydroxy-2-(3-hydroxy-1,5-octadienyl)cyclopentyl]-, stereoisomer (8CI)
OTHER NAMES:
CN PGF3.alpha.
CN **Prostaglandin F3.alpha.**
FS STEREOSEARCH
DR 27954-06-9
MF C20 H32 O5
CI COM
LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, CHEMCATS, CSCHEM, DDFU, DRUGU, IFICDB, IFIPAT, IFIUDB, MEDLINE, TOXCENTER, USPATFULL
(*File contains numerically searchable property data)

Absolute stereochemistry.
Double bond geometry as shown.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

53 REFERENCES IN FILE CA (1962 TO DATE)
4 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
53 REFERENCES IN FILE CAPLUS (1962 TO DATE)
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 137:333176

REFERENCE 2: 136:145563

REFERENCE 3: 135:231699

REFERENCE 4: 135:133281

REFERENCE 5: 135:730

REFERENCE 6: 133:271683

REFERENCE 7: 133:161954

REFERENCE 8: 132:217154

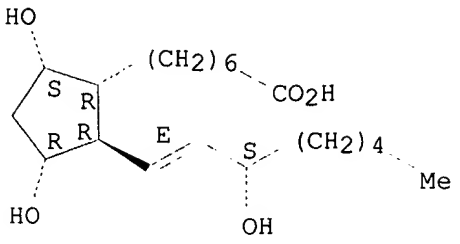
REFERENCE 9: 131:139614

REFERENCE 10: 130:343052

L171 ANSWER 7 OF 9 REGISTRY COPYRIGHT 2002 ACS
RN 745-62-0 REGISTRY
CN Prost-13-en-1-oic acid, 9,11,15-trihydroxy-, (9.alpha.,11.alpha.,13E,15S)-
(9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Cyclopentaneheptanoic acid, 3,5-dihydroxy-2-(3-hydroxy-1-octenyl)- (8CI)
CN **Prostaglandin F1 (7CI)**
OTHER NAMES:
CN 9.alpha.,11.alpha.,15(S)-Trihydroxy-13-trans-prostenoic acid
CN PGF1.alpha.
CN **Prostaglandin F1.alpha.**
CN U 18714
FS STEREOSEARCH
DR 21562-44-7
MF C20 H36 O5
CI COM
LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS,
BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CHEMCATS, CSCHEM, DDFU, DRUGU,
EMBASE, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MSDS-OHS, NAPRALERT,
NIOSHTIC, RTECS*, TOXCENTER, USPATFULL
(*File contains numerically searchable property data)

Absolute stereochemistry.

Double bond geometry as shown.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

927 REFERENCES IN FILE CA (1962 TO DATE)
4 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
927 REFERENCES IN FILE CAPLUS (1962 TO DATE)
26 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 137:336040

REFERENCE 2: 137:333176

REFERENCE 3: 137:198587

REFERENCE 4: 137:91724

REFERENCE 5: 137:68169

REFERENCE 6: 137:62644

REFERENCE 7: 136:406871

REFERENCE 8: 136:384140

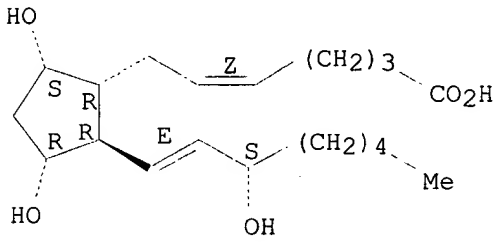
REFERENCE 9: 136:367424

REFERENCE 10: 136:350707

L171 ANSWER 8 OF 9 REGISTRY COPYRIGHT 2002 ACS
RN 551-11-1 REGISTRY
CN Prosta-5,13-dien-1-oic acid, 9,11,15-trihydroxy-, (5Z,9.alpha.,11.alpha.,13E,15S)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 5-Heptenoic acid, 7-[3,5-dihydroxy-2-(3-hydroxy-1-octenyl)cyclopentyl]- (8CI)
OTHER NAMES:
CN (+)-Prostaglandin F2.alpha.
CN 7-[3,5-Dihydroxy-2-(3-hydroxy-1-octenyl)cyclopentyl]-5-heptenoic acid
CN 9.alpha.,11.alpha.,15(S)-Trihydroxy-5-cis-13-trans-prostadienoic acid
CN 9.alpha.,11.alpha.-PGF2
CN Amoglandin
CN Cyclosin
CN Cyclosin (pharmaceutical)
CN Dinoprost
CN Enzaprost
CN Enzaprost F
CN Panacelan
CN PGF2.alpha.

CN **Prostaglandin F2**
CN **Prostaglandin F2.alpha.**
CN Prostarmon F
CN Prostin F 2 alpha
CN Protamodin
CN U 14583
FS STEREOSEARCH
DR 13535-33-6, 99437-94-2
MF C20 H34 O5
CI COM
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMLIST, CIN, CSCHEM, DDFU, DRUGU, EMBASE, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, NAPRALERT, NIOSHTIC, PHAR, PROMT, RTECS*, SYNTHLINE, TOXCENTER, USAN, USPAT2, USPATFULL, VETU
(*File contains numerically searchable property data)
Other Sources: WHO

Absolute stereochemistry.
Double bond geometry as shown.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

12980 REFERENCES IN FILE CA (1962 TO DATE)
145 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
12988 REFERENCES IN FILE CAPLUS (1962 TO DATE)
2 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 137:333482

REFERENCE 2: 137:333442

REFERENCE 3: 137:320613

REFERENCE 4: 137:320430

REFERENCE 5: 137:316113

REFERENCE 6: 137:308502

REFERENCE 7: 137:291927

REFERENCE 8: 137:289311

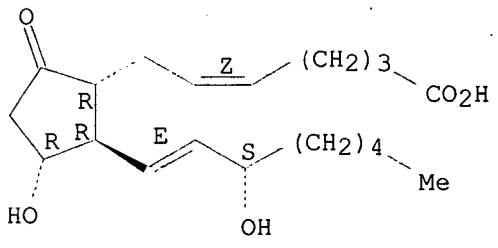
REFERENCE 9: 137:289310

REFERENCE 10: 137:289304

L171 ANSWER 9 OF 9 REGISTRY COPYRIGHT 2002 ACS
RN 363-24-6 REGISTRY
CN Prosta-5,13-dien-1-oic acid, 11,15-dihydroxy-9-oxo-,

(5Z,11.alpha.,13E,15S)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 5-Heptenoic acid, 7-[3-hydroxy-2-(3-hydroxy-1-octenyl)-5-oxocyclopentyl]- (8CI)
CN 5-Heptenoic acid, 7-[3.alpha.-hydroxy-2-(3-hydroxy-1-octenyl)-5-oxocyclopentyl]- (7CI)
OTHER NAMES:
CN (-)-Prostaglandin E2
CN (15S)-Prostaglandin E2
CN 11.alpha.,15.alpha.-Dihydroxy-9-ketoprosta-5,13-dienoic acid
CN 11.alpha.,15.alpha.-Dihydroxy-9-oxo-5-cis,13-trans-prostadienoic acid
CN Cervidil
CN Dinoprostone
CN l-PGE2
CN l-Prostaglandin E2
CN Minprostin E2
CN PGE2
CN Prepidil
CN **Prostaglandin E2**
CN Prostenon
CN Prostenone
CN Prostin
CN Prostin (prostaglandin)
CN Prostin E2
CN U 12062
CN U 42842
FS STEREOSEARCH
MF C20 H32 O5
CI COM
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMLIST, CIN, CSCHEM, CSNB, DDFU, DIOGENES, DRUGU, EMBASE, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NAPRALERT, NIOSHTIC, PHAR, PHARMASEARCH, PROMT, RTECS*, SPECINFO, TOXCENTER, USAN, USPAT2, USPATFULL, VETU
(*File contains numerically searchable property data)
Other Sources: EINECS**, WHO
(**Enter CHEMLIST File for up-to-date regulatory information)

Absolute stereochemistry.
Double bond geometry as shown.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

22848 REFERENCES IN FILE CA (1962 TO DATE)
114 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
22886 REFERENCES IN FILE CAPLUS (1962 TO DATE)
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 137:342115

REFERENCE 2: 137:336737

REFERENCE 3: 137:336735

REFERENCE 4: 137:336693

REFERENCE 5: 137:336674

REFERENCE 6: 137:336610

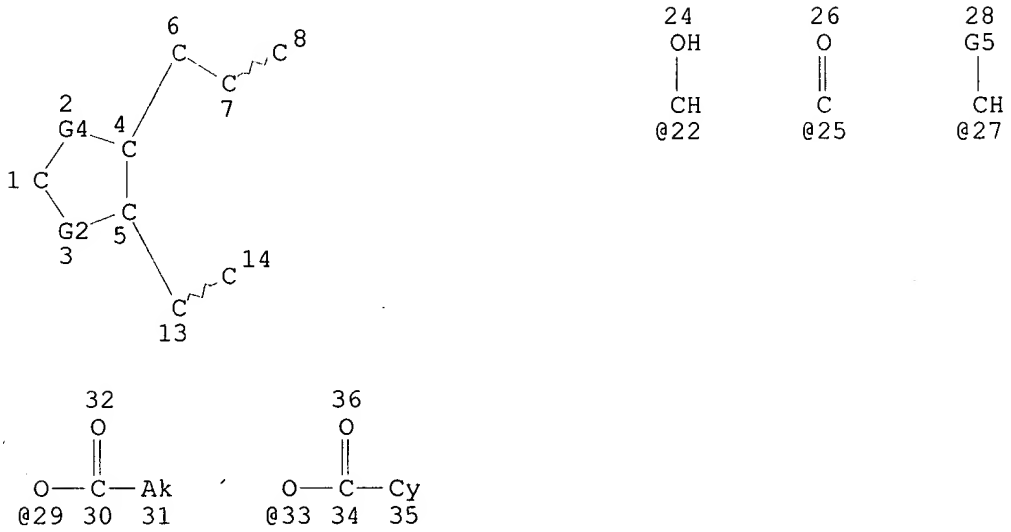
REFERENCE 7: 137:336374

REFERENCE 8: 137:336086

REFERENCE 9: 137:336084

REFERENCE 10: 137:336040

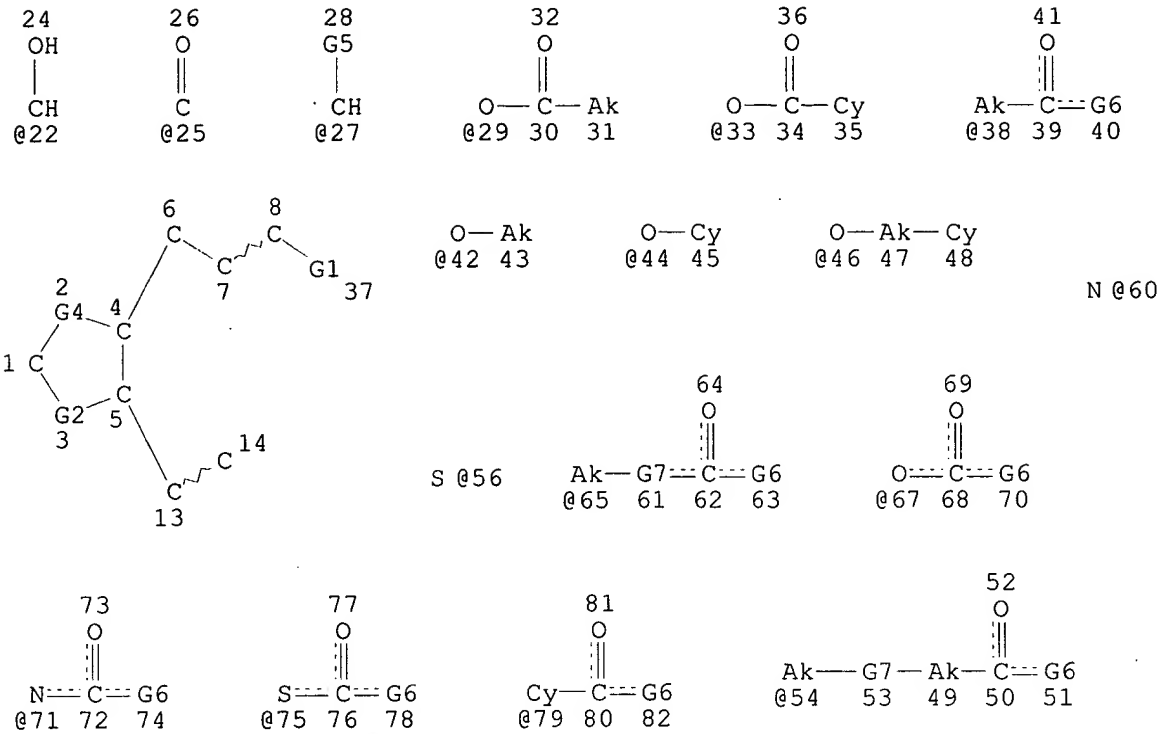
=> d sta que l62
L52 STR



VAR G2=CH2/27
VAR G4=22/25
VAR G5=ME/ET/OH/OME/29/33
NODE ATTRIBUTES:
CONNECT IS M1 RC AT 8
CONNECT IS M1 RC AT 14
CONNECT IS M1 RC AT 35
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC 4
NUMBER OF NODES IS 24

STEREO ATTRIBUTES: NONE
L55 15252 SEA FILE=REGISTRY CSS FUL L52
L61 STR



VAR G1=38/65/54/67/71/75/79
VAR G2=CH2/27
VAR G4=22/25
VAR G5=ME/ET/OH/OME/29/33
VAR G6=OH/42/44/46
VAR G7=O/60/56/CY
NODE ATTRIBUTES:
CONNECT IS M1 RC AT 14
CONNECT IS M1 RC AT 56
CONNECT IS M1 RC AT 60
CONNECT IS M1 RC AT 71
CONNECT IS M1 RC AT 75
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC 4
NUMBER OF NODES IS 65

STEREO ATTRIBUTES: NONE
L62 9692 SEA FILE=REGISTRY SUB=L55 CSS FUL L61

100.0% PROCESSED 15252 ITERATIONS 9692 ANSWERS
SEARCH TIME: 00.00.03

=> d his

(FILE 'HOME' ENTERED AT 13:10:06 ON 04 DEC 2002)
SET COST OFF

FILE 'HCAPLUS' ENTERED AT 13:10:27 ON 04 DEC 2002
E STJERNSCHANTZ J/AU

```
L1            83 S E3-E7
                 E RESUL B/AU
L2            50 S E3,E4
                 E LAKE S/AU
L3            28 S E3-E7,E11
                 E WO98-SE1368/AP,PRN
L4             1 S E3,E4
                 E SE97-2706/AP,PRN
L5             1 S E4
L6             1 S L1-L3 AND L4,L5
                 SEL RN

     FILE 'REGISTRY' ENTERED AT 13:12:29 ON 04 DEC 2002
L7            38 S E1-E38
L8            13 S L7 AND 46.150.18/RID AND F/ELS
L9             5 S L8 AND C5/ES
L10            2 S L9 NOT SI/ELS
L11            8 S L8 NOT L9
L12            3 S L11 AND 3/NR
L13            1 S L12 NOT SI/ELS
L14           25 S L7 NOT L8-L13
L15            9 S L14 AND C5/ES
L16            6 S L15 NOT SI/ELS
L17            2 S L16 AND 1/NR
L18            1 S L17 NOT 4510-16-1
L19           28 S L7 NOT SI/ELS
L20           24 S L19 AND NR>=1
L21           11 S L20 AND (C7H12O2 OR C9H16O OR C7H6BRF OR C11H18O OR C9H19N OR
L22           13 S L20 NOT L21

     FILE 'REGISTRY' ENTERED AT 13:21:17 ON 04 DEC 2002

     FILE 'HCAPLUS' ENTERED AT 13:22:51 ON 04 DEC 2002
L23            8 S (PGE2 OR PGE 2 OR PROSTA?)(L)TRIMETHYLENE
L24            1 S L23 (L) "E2"
L25            7 S L23 NOT L24
L26            3 S TRIMETHYLENEPROSTAGLAN?

     FILE 'REGISTRY' ENTERED AT 13:26:02 ON 04 DEC 2002
L27            1 S 63357-23-3
L28            1 S 62446-43-9

     FILE 'HCAPLUS' ENTERED AT 13:35:01 ON 04 DEC 2002
L29        23468 S PGE2 OR PGE 2
L30         1902 S PG(L)"E2"
L31        14085 S PROSTAGLANDIN?(L)"E2"
L32        28658 S L29-L31
L33          121 S L32 (L) TRINOR
L34           18 S L33 (L) 18 19 20
L35           18 S L34 (L) PHENYL
L36            0 S L34 (L) FLUOROPHENYL
L37           18 S L34 (L) PHENYL (L) 17
L38            6 S L37 (L) DIHYDRO
L39            6 S L38 (L) 13 14

     FILE 'REGISTRY' ENTERED AT 13:40:55 ON 04 DEC 2002
L40            2 S 55122-62-8 OR 363-24-6

     FILE 'HCAPLUS' ENTERED AT 13:44:17 ON 04 DEC 2002
                 SET SMARTSELECT ON
L41           SEL L39 1- RN :      23 TERMS
                 SET SMARTSELECT OFF
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     FILE 'REGISTRY' ENTERED AT 13:44:18 ON 04 DEC 2002
L42           23 S L41
L43           21 S L42 NOT L40
L44           15 S L43 AND C5/ES
L45            3 S L44 AND 46.150.18/RID
                 E PHXA/CN
L46            1 S E6
                 E PROSTAGLANDIN E/CN
L47            4 S E3,E19,E20,E47
L48            1 S E102
L49            5 S L47,L48
                 E PROSTAGLANDIN F/CN
L50            2 S E12,E25
L51            5 S E15,E22,E26,E59,E65
L52              STR
L53           50 S L52 CSS
L54              STR L52
L55        15252 S L52 CSS FUL
                 SAV TEMP L55 FAY445/A
L56              STR L54
L57           50 S L56 CSS SAM SUB=L55
L58         9612 S L56 CSS FUL SUB=L55
                 SAV TEMP L58 FAY445A/A
L59              STR L54
L60            0 S L59 CSS SAM SUB=L58
L61              STR L56
L62         9692 S L61 CSS FUL SUB=L55
                 SAV TEMP L62 FAY445B/A
L63            1 S L59 CSS SAM SUB=L62
L64            1 S L59 SAM SUB=L62
L65           39 S L59 FUL SUB=L62
                 SAV L65 FAY445C/A
L66         3501 S L55 AND 46.150.18/RID
L67          558 S L66 AND F/ELS
L68          236 S L67 AND 1/F
L69          214 S L68 AND 2/NR
L70          182 S L69 NOT (SI OR P OR N OR S)/ELS
L71           11 S L70 AND 3 FLUOROPHENYL
L72           48 S L55 AND TRINOR
L73            2 S L72 AND (PGE2 OR "E2")
L74            3 S L71 AND (C26H37FO5 OR C23H33FO5 OR C23H31FO5)
L75              STR
L76            0 S L75 CSS SAM SUB=L55
L77            4 S L75 CSS FUL SUB=L55
                 SAV L77 FAY445D/A
L78            2 S L77 NOT C23H25FO5
L79            1 S L44 AND C23H38O5
L80            0 S L44 AND TRIMETHYLENE
L81            1 S L55 AND TRIMETHYLENE
L82              STR L75
L83           22 S L82 CSS SAM SUB=L55
L84          434 S L82 CSS FUL SUB=L55
                 SAV FAY4453/A L84
L85              STR L82
L86              STR L85
L87          993 S L86 CSS FUL SUB=L55
                 SAV L87 FAY445E/A
L88            2 S L42 AND L87
L89           49 S L87 AND C4/ES
L90           27 S L89 AND 2/NR
L91              STR L86
L92          783 S L91 CSS FUL SUB=L87
                 SAV L92 FAY445F/A
```

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L93          23 S L92 AND C4/ES AND 2/NR
                SEL RN 3-7
L94          18 S L93 NOT E1-E5
L95          20 S L78,L94
L96           8 S L7 AND L55
L97          24 S L95,L96
L98           4 S L96 NOT L95
L99           2 S L98 NOT (4510-16-1 OR 38315-43-4)
L100         22 S L95,L99

     FILE 'HCAPLUS' ENTERED AT 15:53:47 ON 04 DEC 2002
L101         11 S L100
L102         11 S L101 AND (PY<=1997 OR PRY<=1997 OR AY<=1997)
L103          4 S L102 AND (?GLAUCOM? OR ?OCULAR? OR ?HYPERTENS? OR EYE)
L104          3 S L103 AND ?GLAUCOM?
                E GLAUCOMA/CT
                E E4+ALL
L105       2852 S E5,E4+NT
L106       4484 S E6,E7,E8,E9/BI
                E E10+ALL
L107        937 S E3
                E GLAUCOMA/CT
                E E3+ALL
L108        146 S E15
L109        178 S E20,E21
L110          3 S L102 AND L105-L109
L111          3 S L104,L110
L112          2 S L1-L6 AND L102
L113          3 S L111,L112
L114          8 S L102 NOT L113
L115          3 S L114 AND TRIMETHYLENE?
                SEL RN L113

     FILE 'REGISTRY' ENTERED AT 15:59:44 ON 04 DEC 2002
L116         69 S E1-E69
L117         21 S L55 AND L116
L118         16 S L100 NOT L117
L119         15 S L117 NOT L100

     FILE 'HCAPLUS' ENTERED AT 16:01:26 ON 04 DEC 2002
L120      39837 S L62
L121      33885 S L120 AND (PY<=1997 OR PRY<=1997 OR AY<=1997)
L122        177 S L121 AND L105-L109
L123        170 S L121 AND ?GLAUCOM?
L124         97 S L121 AND ?OCULAR?(L)?HYPERTEN?
L125        196 S L122,L123,L124
L126        104 S L125 AND P/DT
L127         96 S L126 AND (US/PC OR US/PRC OR US/AC)
L128         88 S L127 AND (PD<=19970711 OR PRD<=19970711 OR AD<=19970711)
L129         83 S L128 AND ?GLAUCOM?
L130          5 S L128 NOT L129
L131          4 S L130 AND ?HYPOTENS?
L132          1 S L130 NOT L131
L133         88 S L128-L132
                SEL HIT RN

     FILE 'REGISTRY' ENTERED AT 16:05:40 ON 04 DEC 2002
L134        506 S E70-E575
L135         26 S L134 AND NC>=2
L136          0 S L134 AND IDS/CI
L137         18 S L134 AND (MXS OR PMS)/CI
L138         25 S L134 AND (COMPD OR WITH OR UNSPECIFIED)
L139        480 S L134 NOT L135-L138
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     FILE 'REGISTRY' ENTERED AT 16:09:01 ON 04 DEC 2002

     FILE 'HCAPLUS' ENTERED AT 16:09:14 ON 04 DEC 2002

     FILE 'REGISTRY' ENTERED AT 16:09:17 ON 04 DEC 2002

     FILE 'HCAPLUS' ENTERED AT 16:09:31 ON 04 DEC 2002
L140          3 S L117 AND L113
L141      37416 S L139
L142        702 S L141 AND US/PC AND (PD<=19970711 OR PRD<=19970711 OR AD<=1997
L143         74 S L142 AND L105-L109
L144         80 S L142 AND (?GLAUCOM? OR ?OCULAR?(L)(?HYPERTENS? OR ?HYPOTENS?
L145         80 S L143,L144

     FILE 'HCAPLUS' ENTERED AT 16:13:21 ON 04 DEC 2002
L146         79 S L145 NOT L115,L140
L147         58 S L146 AND (GLAUCOM? OR OCULAR OR HYPERTENS? OR HYPOTENS? OR IN
L148         21 S L146 NOT L147
                E PROSTANOID RECEPTOR/CT
L149        183 S E7
                E E4+ALL
L150       1203 S E5,E6,E10,E27
L151        310 S PROSTANOID(L)RECEPTOR(L)EP1
L152         10 S L149-L151 AND L125
L153          2 S L145 AND EP1
L154         10 S L152,L153
L155          9 S L154 NOT L115,L140
                SEL HIT RN

     FILE 'REGISTRY' ENTERED AT 16:21:47 ON 04 DEC 2002
L156         64 S E1-E64
L157         62 S L156 NOT SI/ELS

     FILE 'HCAPLUS' ENTERED AT 16:23:04 ON 04 DEC 2002
L158      29845 S L157
L159        806 S L158 AND L149-L151
L160        275 S L159 AND EP1
L161        132 S L160 AND (PD<=19970711 OR PRD<=19970711 OR AD<=19970711)
L162          2 S L161 AND L105-L109
L163         21 S L161 AND (?GLAUCOM? OR ?OCULAR? OR EYE)
L164          9 S L161 AND (?HYPOTENS? OR ?HYPERTENS? OR PRESSURE)
L165          9 S L162,L164
L166         14 S L163 NOT L165
L167          5 S L155 NOT L165
L168          4 S L167 NOT DP/TI
L169         13 S L165,L168

     FILE 'REGISTRY' ENTERED AT 16:29:54 ON 04 DEC 2002
L170         10 S L49,L50,L51
L171          9 S L170 AND C5/ES
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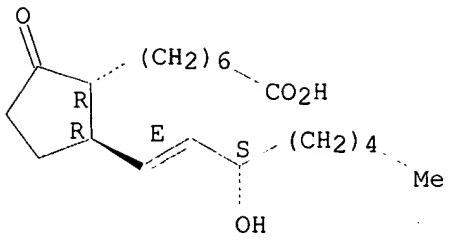
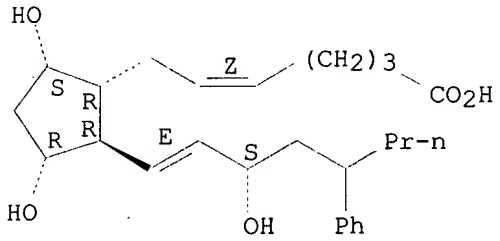


RN 55582-75-7 HCAPLUS
CN Prosta-5,13-dien-1-oic acid, 9,11,15-trihydroxy-17-phenyl-, (5Z,9.alpha.,11.alpha.,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



L169 ANSWER 5 OF 13 HCAPLUS COPYRIGHT 2002 ACS
AN 1995:786104 HCAPLUS
DN 123:189195
TI Molecular characterization and ocular hypotensive properties of the prostanoid EP2 receptor
AU Woodward, D. F.; Bogardus, A. M.; Donello, J. E.; Fairbairn, C. E.; Gil, D. W.; Kedzie, K. M.; Burke, J. A.; Kharlamb, A.; Runde, E.; et al.
CS Dep. of Biosciences and Medicinal Chemistry, Allergan Inc., Irvine, CA, USA
SO Journal of Ocular Pharmacology and Therapeutics (**1995**), 11(3), 447-54
CODEN: JOPTFU; ISSN: 1080-7683
PB Liebert
DT Journal
LA English
CC 2-9 (Mammalian Hormones)
AB The cloning of the genes that encode for prostaglandin (PG) receptors has resolved much of the complexity and controversy in this area by confirming the classification proposed by R.A. Coleman; et al. (1994). Two issues that remained unresolved were (1) the inability of the EP2 agonist butaprost to interact with the cloned putative EP2 receptor and (2) mol. biol. confirmations of a 4th PGF2-sensitive receptor, which was pharmacol. designated EP4. To provide clarification, the authors attempted to clone further PGE2-sensitive receptors. By using a cDNA probe that encodes for the human EP3A receptor, a cDNA clone that encoded for a novel PGE2-sensitive receptor was obtained by screening a human placenta library. This cDNA clone was transfected into COS-7 cells for pharmacol. studies. The cDNA clone obtained from human placenta had only .apprx.30% amino acid identity with cDNAs for other PG receptors, including those that encode for the previously proposed murine and human EP2 receptors. Radioligand binding studies on the novel EP receptor expressed in COS-7 cells revealed that selective EP2 agonists such as butaprost, AH 13205, AY

23626 and 19(R)-OH PGE2 all competed with 3H-PGE2 for its binding sites, whereas selective agonists for other PG receptor subtypes had minimal or no effect. This receptor was coupled to adenylate cyclase and EP2 agonists caused dose-related increased in cAMP. It appears that the cDNA described herein encodes for the pharmacol. defined EP2 receptor. **Ocular** studies revealed that AH 13205 decreased **intraocular** pressure in normal and **ocular hypertensive** monkeys by a mechanism that does not appear to be involve inhibition of aq. humor secretion.

ST eye ocular pressure prostaglandin EP2 receptor; AH 13205 ocular pressure

IT Eye
(mol. characterization and ocular hypotensive properties of the prostanoid EP2 receptor)

IT **Prostaglandin receptors**
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(EP2, mol. characterization and ocular hypotensive properties of the prostanoid EP2 receptor)

IT **Receptors**
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(**prostaglandin** EP2, mol. characterization and ocular hypotensive properties of the prostanoid EP2 receptor)

IT 60-92-4, CAMP
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(mol. characterization and ocular hypotensive properties of the prostanoid EP2 receptor)

IT **363-24-6**, PGE2 148436-63-9, AH 13205
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(mol. characterization and ocular hypotensive properties of the prostanoid EP2 receptor)

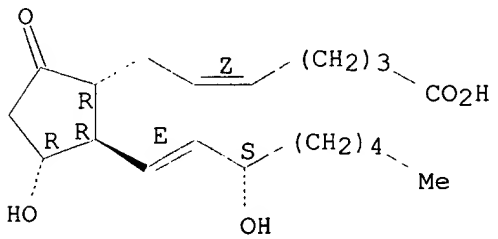
IT 9012-42-4, Adenylate cyclase
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(mol. characterization and ocular hypotensive properties of the prostanoid EP2 receptor)

IT **363-24-6**, PGE2
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(mol. characterization and ocular hypotensive properties of the prostanoid EP2 receptor)

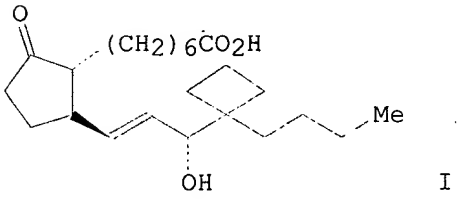
RN 363-24-6 HCAPLUS

CN Prosta-5,13-dien-1-oic acid, 11,15-dihydroxy-9-oxo-, (5Z,11.alpha.,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



L115 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2002 ACS
AN 1980:792 HCAPLUS
DN 92:792
TI Prostaglandin E antagonist activity of 11-deoxy-16,16-**trimethyleneprostaglandin** E1
AU Birnbaum, J. E.; Tolman, E. L.
CS Biol. Res. Dep., Am. Cyanamid Co., Pearl River, NY, 10965, USA
SO Prostaglandins (**1979**), 18(3), 349-57
CODEN: PRGLBA; ISSN: 0090-6980
DT Journal
LA English
CC 2-3 (Hormone Pharmacology)
GI



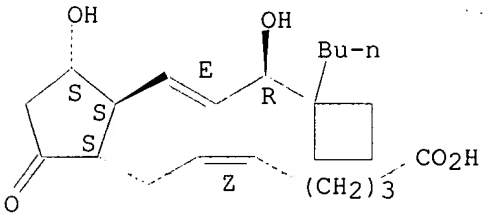
I

AB dl-11-Deoxy-16,16-**trimethyleneprostaglandin** E1 (I) [63357-23-3] was a potent inhibitor of prostaglandin E-induced contractions of the gerbil colon. The antagonism was directed specifically against the prostaglandin E receptor and was not manifested when contractions were induced by either PGF2.alpha. or acetylcholine.
ST prostaglandin E antagonist intestine; deoxytrimethyleneprostaglandin E1 PGE inhibitor
IT Prostaglandins
RL: BIOL (Biological study)
(E, inhibitor of, deoxytrimethyleneprostaglandin E1 as, in intestine)
IT Intestine
(colon, contraction of, deoxytrimethyleneprostaglandin E1 effect on)
IT Molecular structure-biological activity relationship
(prostaglandin E-inhibiting, of **trimethylene** prostaglandins)
IT 62407-92-5 62446-41-7 **62446-43-9** 63295-71-6 63295-77-2
63295-79-4 63295-81-8 63357-23-3 63357-24-4 **63357-25-5**
63357-26-6 63357-28-8 63357-30-2 63357-32-4 63357-34-6
63357-36-8 71953-84-9 71953-85-0 71953-86-1 72002-66-5
72002-67-6 72002-68-7
RL: BIOL (Biological study)
(as prostaglandin E antagonist, in intestine)
IT **62446-43-9 63357-25-5 63357-26-6**
RL: BIOL (Biological study)
(as prostaglandin E antagonist, in intestine)
RN 62446-43-9 HCAPLUS
CN 5-Heptenoic acid, 7-[2-[3-(1-butylcyclobutyl)-3-hydroxy-1-propenyl]-3-hydroxy-5-oxocyclopentyl]-, [1.alpha.(Z),2.beta.(1E,3R*),3.alpha.]- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.

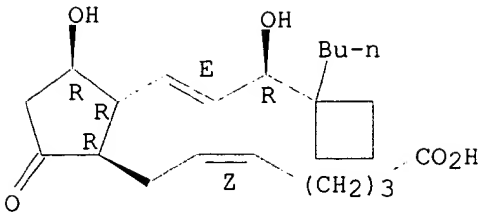
(prepn. and iodination of)
IT 40899-61-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and isomerization of)
IT 63295-65-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and oxidn. of)
IT 62407-83-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and reaction with lithium acetylide)
IT 62407-82-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and redn. of)
IT 62407-84-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and trimethylsilylation of)
IT 63502-09-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
IT 542-69-8
RL: RCT (Reactant)
(reaction of, with butyllithium and acylobutane carboxylate)
IT 14924-53-9
RL: RCT (Reactant)
(reaction of, with butyllithium and iodobutane)
IT **62446-42-8P 62446-43-9P 63357-25-5P 63357-26-6P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and bronchodilator activity of)
RN 62446-42-8 HCAPLUS
CN 5-Heptenoic acid, 7-[2-[3-(1-butylcyclobutyl)-3-hydroxy-1-propenyl]-3-hydroxy-5-oxocyclopentyl]-, [1.alpha.(Z),2.beta.(1E,3S*),3.alpha.]- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.



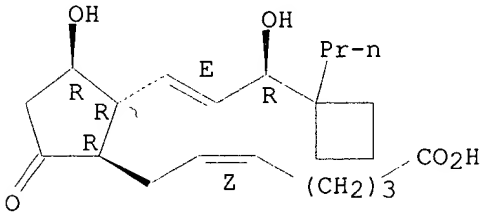
RN 62446-43-9 HCAPLUS
CN 5-Heptenoic acid, 7-[2-[3-(1-butylcyclobutyl)-3-hydroxy-1-propenyl]-3-hydroxy-5-oxocyclopentyl]-, [1.alpha.(Z),2.beta.(1E,3R*),3.alpha.]- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.



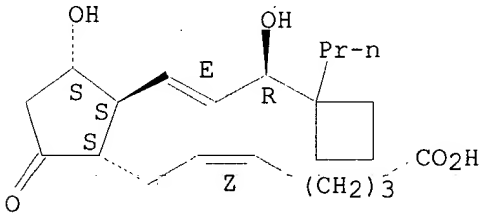
RN 63357-25-5 HCAPLUS
CN 5-Heptenoic acid, 7-[3-hydroxy-2-[3-hydroxy-3-(1-propylcyclobutyl)-1-propenyl]-5-oxocyclopentyl]-, [1.alpha.(Z),2.beta.(1E,3R*),3.alpha.]-(9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.



RN 63357-26-6 HCAPLUS
CN 5-Heptenoic acid, 7-[3-hydroxy-2-[3-hydroxy-3-(1-propylcyclobutyl)-1-propenyl]-5-oxocyclopentyl]-, [1.alpha.(Z),2.beta.(1E,3S*),3.alpha.]-(9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.

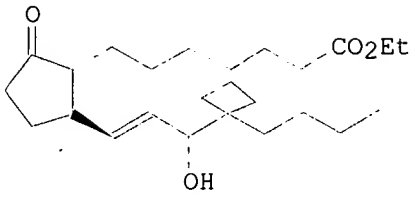


L115 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2002 ACS
AN 1977:155256 HCAPLUS
DN 86:155256
TI 16,16-Spirocycloalkylprostaglandins
IN Schaub, Robert E.; Weiss, Martin J.
PA American Cyanamid Co., USA
SO Ger. Offen., 250 pp.
CODEN: GWXXBX
DT Patent
LA German
IC C07C177-00
CC 24-4 (Alicyclic Compounds)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

PI	DE 2629644	A1	19770120	DE 1976-2629644	19760701	<--
	US 4028396	A	19770607	US 1975-592494	19750702	<--
	GB 1560121	A	19791219	GB 1976-26409	19760624	<--
	BE 843679	A1	19770103	BE 1976-168550	19760701	<--
	NL 7607337	A	19770104	NL 1976-7337	19760702	<--
	JP 52007941	A2	19770121	JP 1976-78828	19760702	<--
	FR 2342724	A1	19770930	FR 1976-20333	19760702	<--
	US 4178461	A	19791211	US 1977-778302	19770316	<--
PRAI	US 1975-592494		19750702	<--		

GI



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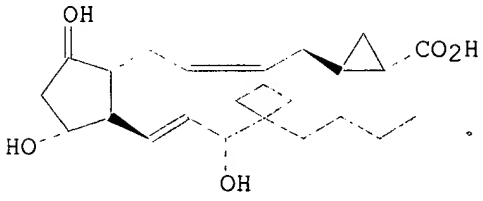


II

AB Title prostaglandins (e.g., I and II) were prepd. by modifications of conventional syntheses, using building blocks for the side chains such as 1-butylcyclobutanecarboxylic acid (via ethynylation of the corresponding aldehyde) and 2-(2-chloroethyl)cyclopropanecarboxylic acid.

ST spiroalkyleneprostaglandin; bronchodilator spiroalkyleneprostaglandin; gastric juice spiroalkyleneprostaglandin; prostaglandin spiroalkylene

IT Bronchodilators
(prostaglandin 16,16-**trimethylene** derivs.)

IT Gastric juice
(secretion of, inhibition of by prostaglandin 16,16-**trimethylene** derivs.)

IT Prostaglandins
(derivs., 2,3-methano and 16,16-**trimethylene**)

IT 542-69-8
RL: RCT (Reactant)
(alkylation of ethyl cyclobutanecarboxylate with)

IT 14924-53-9
RL: RCT (Reactant)
(alkylation of, with butyl iodide)

IT 75-24-1
RL: RCT (Reactant)
(metalation with, in prostaglandin synthesis)

IT 41301-95-5
RL: RCT (Reactant)
(oxidn. of)

IT 20039-37-6
RL: RCT (Reactant)
(oxidn. of 2-(5-hydroxy-1-pentyl)-2-cyclopenten-1-one N-methyl oxime with)

IT 62407-83-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and ethynylation of)

IT 62407-82-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and hydride redn. of)

IT 62407-95-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and hydrolysis of)

IT 62407-85-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and iodination of)

IT 20434-34-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and oxidn. of)

IT 62407-94-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and partial hydrogenation of)

IT 62443-81-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and partial hydrolysis of)

IT 62407-86-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and partial redn. of)

IT 62408-17-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and reaction with sodium iodide)

IT 62408-18-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and reaction with triphenylphosphine)

IT 62408-16-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and sapon. of)

IT 62407-84-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and silylation of)

IT 62379-23-1P 62379-24-2P 62387-61-5P 62407-88-9P 62407-90-3P
62407-99-2P 62408-19-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and use in prostaglandin synthesis)

IT 58148-69-9P **58148-71-3P** 58148-74-6P 62407-87-8P
62407-89-0P 62407-91-4P 62407-92-5P 62407-93-6P 62407-96-9P
62407-97-0P 62407-98-1P 62408-08-6P 62408-09-7P 62408-10-0P
62408-11-1P 62408-12-2P 62408-13-3P 62408-14-4P 62408-15-5P
62408-24-6P 62443-82-7P 62446-40-6P 62446-41-7P **62446-42-8P**
62446-43-9P 62446-44-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

IT 60934-42-1P 62408-00-8P 62408-01-9P 62408-02-0P 62408-03-1P
62408-04-2P 62408-05-3P 62408-06-4P 62408-07-5P 62408-20-2P
62408-21-3P 62408-22-4P 62408-23-5P 62408-25-7P 62408-26-8P
62408-27-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as prostaglandin intermediate)

IT 623-51-8
RL: RCT (Reactant)
(reaction of, with 2-[5-[(methylsulfonyl)oxy]pentyl]-2-cyclopenten-1-one N-methyl oxime)

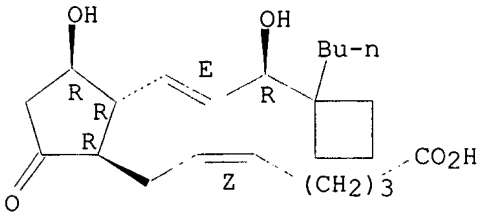
IT 1972-28-7
RL: RCT (Reactant)
(reaction of, with copper and 4-chloro-1-butene)

IT 927-73-1
RL: RCT (Reactant)
(reaction of, with copper and ethyl diazoacetate)

IT 41138-61-8
RL: RCT (Reactant)
(reaction of, with dihydropyran)

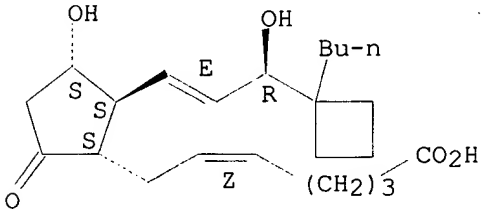
IT 52477-93-7
RL: RCT (Reactant)
(reaction of, with ethyl 2-mercaptoacetate)
IT 1099-45-2 5367-24-8 19093-51-7 21591-31-1 40098-44-0 49826-07-5
RL: RCT (Reactant)
(use of, in prostaglandin synthesis)
IT **58148-71-3P 62446-42-8P 62446-43-9P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 58148-71-3 HCAPLUS
CN 5-Heptenoic acid, 7-[2-[3-(1-butylcyclobutyl)-3-hydroxy-1-propenyl]-3-hydroxy-5-oxocyclopentyl]-, [1R-[1.alpha.(Z),2.beta.(1E,3R*),3.alpha.]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



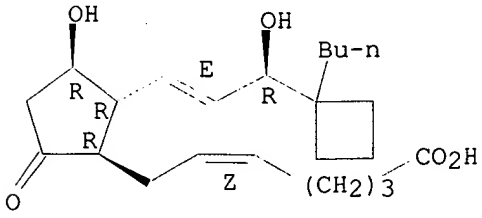
RN 62446-42-8 HCAPLUS
CN 5-Heptenoic acid, 7-[2-[3-(1-butylcyclobutyl)-3-hydroxy-1-propenyl]-3-hydroxy-5-oxocyclopentyl]-, [1.alpha.(Z),2.beta.(1E,3S*),3.alpha.]- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.



RN 62446-43-9 HCAPLUS
CN 5-Heptenoic acid, 7-[2-[3-(1-butylcyclobutyl)-3-hydroxy-1-propenyl]-3-hydroxy-5-oxocyclopentyl]-, [1.alpha.(Z),2.beta.(1E,3R*),3.alpha.]- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.



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=> d all hitstr tot l169

L169 ANSWER 1 OF 13 HCAPLUS COPYRIGHT 2002 ACS
AN 2002:770134 HCAPLUS
DN 137:279023
TI Preparation of thromboxane ligands without blood clotting side effects
IN Burk, Robert M.; Krauss, Achim H. P.; Woodward, David F.
PA Allergan, Inc., USA
SO U.S., 18 pp., Cont.-in-part of U.S. Ser. No. 331,356, abandoned.
CODEN: USXXAM
DT Patent
LA English
IC ICM C07D307-93
ICS A01K031-343
NCL 514469000
CC 26-3 (Biomolecules and Their Synthetic Analogs)
Section cross-reference(s): 1, 63
FAN.CNT 6

	PATENT NO.	KIND	DATE		APPLICATION NO.	DATE	
PI	US 6462077	B1	20021008		US 2001-899713	20010705	<--
	US 5416106	A	19950516		US 1993-174534	19931228	<--
	US 5516791	A	19960514		US 1995-378414	19950126	<--
	US 5650431	A	19970722		US 1996-645467	19960513	<--
	US 5741812	A	19980421		US 1997-832431	19970402	<--
PRAI	US 1993-174534	A3	19931228	<--			
	US 1995-378414	A2	19950126	<--			
	US 1996-645467	A2	19960513	<--			
	US 1997-832431	A1	19970402	<--			
	US 1998-38068	B1	19980311				
	US 1999-331356	B2	19990616				

OS MARPAT 137:279023
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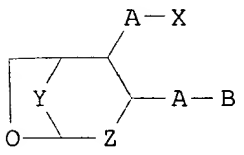

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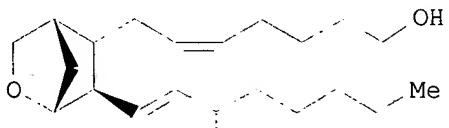


II

AB Thromboxane agonists of formula I [A = alkylene, alkenylene, etc.; B = Me, cycloalkyl, aryl, heteroaryl, etc.; X = (substituted) CH2OH, (substituted) CO2H, etc.; Y = (CH2)n; n = 1-2; Z = (CH2)m; m = 0-1] are prepd. The compds. are used for the treatment of ocular **hypotension**, **hypertension**, hemorrhage, myocardial ischemia, angina pectoris, coronary contraction, cerebrovascular contraction after subarachnoidal hemorrhage, cerebral hemorrhage and asthma. Thus, II was prepd. from U-46619 in two steps. II exhibited pronounced activity in contracting vascular smooth muscle.

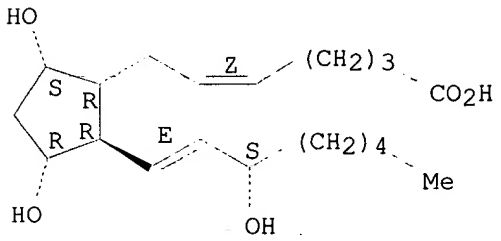
ST thromboxane ligand prepn ocular **hypotension**; hemorrhage treatment thromboxane agonist prepn

IT Thromboxanes
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES

(Uses)
(agonists; prepn. of thromboxane ligands without blood clotting side effects)
IT Heart, disease
(angina pectoris; prepn. of thromboxane ligands without blood clotting side effects)
IT Thromboxanes
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(antagonists; prepn. of thromboxane ligands without blood clotting side effects)
IT Brain, disease
(hemorrhage; prepn. of thromboxane ligands without blood clotting side effects)
IT Heart, disease
(ischemia; prepn. of thromboxane ligands without blood clotting side effects)
IT **Hypotension**
(ocular; prepn. of thromboxane ligands without blood clotting side effects)
IT Cell aggregation
(platelet; prepn. of thromboxane ligands without blood clotting side effects)
IT Asthma
Cardiac contraction
Hemorrhage
Human
Hypertension
(prepn. of thromboxane ligands without blood clotting side effects)
IT Thromboxane receptors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(prepn. of thromboxane ligands without blood clotting side effects)
IT **Hypertension**
(pulmonary; prepn. of thromboxane ligands without blood clotting side effects)
IT Meninges
(subarachnoid hemorrhage; prepn. of thromboxane ligands without blood clotting side effects)
IT Prostanoid receptors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(type EP; prepn. of thromboxane ligands without blood clotting side effects)
IT **Prostanoid receptors**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(type **EP1**; prepn. of thromboxane ligands without blood clotting side effects)
IT Prostanoid receptors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(type EP3; prepn. of thromboxane ligands without blood clotting side effects)
IT 167270-44-2P
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(prepn. of thromboxane ligands without blood clotting side effects)
IT 159359-94-1P 159359-95-2P 159359-97-4P 159359-98-5P 167270-49-7P
167270-51-1P 193149-59-6P 193149-60-9P 193149-61-0P 193149-62-1P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of thromboxane ligands without blood clotting side effects)
IT 75-31-0, Isopropylamine, reactions **551-11-1**, PGF2.alpha.

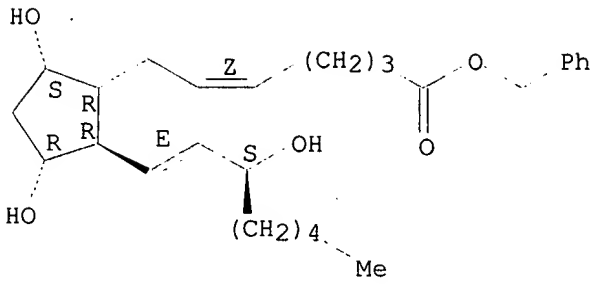
3282-30-2, Trimethylacetyl chloride 56985-40-1, U-46619
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of thromboxane ligands without blood clotting side effects)
IT 65147-38-8P **71845-64-2P 135877-48-4P**
136198-86-2P 147555-69-9P 147555-72-4P 159359-93-0P
159359-96-3P 167270-42-0P 167270-43-1P 167270-45-3P 167270-46-4P
167270-47-5P 167270-48-6P 304854-64-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of thromboxane ligands without blood clotting side effects)
RE.CNT 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Anon; EP 0364417 1990 HCAPLUS
(2) Bito; US 4599353 A 1986 HCAPLUS
(3) Bito, L; Applied Pharmacology in the Medical Treatment of Glaucomas 1984, P477 HCAPLUS
(4) Bito, L; Arch Ophthalmol 1987, V105, P1036 MEDLINE
(5) Burk; US 5416106 A 1995 HCAPLUS
(6) Burk; US 5516791 A 1996 HCAPLUS
(7) Burk; US 5741812 A 1998 HCAPLUS
(8) Burk; Tetrahedron Letters 1993, V34(3), P395 HCAPLUS
(9) Chan; US 4994274 A 1991 HCAPLUS
(10) Chan; US 5034413 A 1991 HCAPLUS
(11) Coleman, R; Br J Pharmacol V73, P773 HCAPLUS
(12) Grover; US 4931460 A 1990 HCAPLUS
(13) Larock; US 4436934 A 1984 HCAPLUS
(14) Lieb; US 4622339 A 1986 HCAPLUS
(15) Nilsson; Invest Ophtalmol Vis Sci 1987, suppl, P284
(16) Siebold; Prodrug 1989, V5, P3
(17) Starr, M; Exp Eye Research 1971, P170 HCAPLUS
IT **551-11-1**, PGF2.alpha.
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of thromboxane ligands without blood clotting side effects)
RN 551-11-1 HCAPLUS
CN Prosta-5,13-dien-1-oic acid, 9,11,15-trihydroxy-, (5Z,9.alpha.,11.alpha.,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



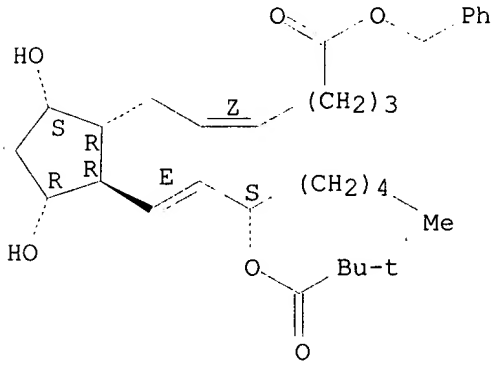
IT **71845-64-2P 135877-48-4P 136198-86-2P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of thromboxane ligands without blood clotting side effects)
RN 71845-64-2 HCAPLUS
CN Prosta-5,13-dien-1-oic acid, 9,11,15-trihydroxy-, phenylmethyl ester, (5Z,9.alpha.,11.alpha.,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



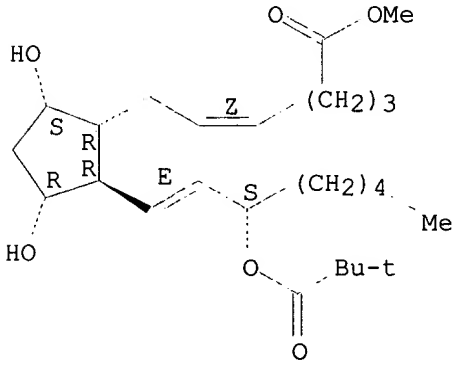
RN 135877-48-4 HCAPLUS
CN Prosta-5,13-dien-1-oic acid, 15-(2,2-dimethyl-1-oxopropoxy)-9,11-dihydroxy-, phenylmethyl ester, (5Z,9.alpha.,11.alpha.,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 136198-86-2 HCAPLUS
CN Prosta-5,13-dien-1-oic acid, 15-(2,2-dimethyl-1-oxopropoxy)-9,11-dihydroxy-, methyl ester, (5Z,9.alpha.,11.alpha.,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



L169 ANSWER 2 OF 13 HCAPLUS COPYRIGHT 2002 ACS
AN 1999:344852 HCAPLUS
DN 131:5147
TI Preparation of cyclopentane heptan(ene)oic acid, 2-heteroarylalkenyl

derivatives for use as ocular **hypertensive** agents
IN Burk, Robert M.
PA Allergan Sales, Inc., USA
SO PCT Int. Appl., 49 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61K031-557
ICS C07D277-30
CC 26-3 (Biomolecules and Their Synthetic Analogs)
Section cross-reference(s): 1, 63
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	WO 9925358	A1	19990527	WO 1998-US24481	19981117	
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM					
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG					
	US 6124344	A	20000926	US 1997-974067	19971119	<--
	CA 2310630	AA	19990527	CA 1998-2310630	19981117	
	AU 9914616	A1	19990607	AU 1999-14616	19981117	
	EP 1032395	A1	20000906	EP 1998-958612	19981117	
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI					
	BR 9814679	A	20001003	BR 1998-14679	19981117	
	JP 2001522893	T2	20011120	JP 2000-520791	19981117	
	NO 2000002217	A	20000718	NO 2000-2217	20000428	
PRAI	US 1997-974067	A	19971119			
	US 1993-174535	A3	19931228	<--		
	US 1995-445842	A3	19950711	<--		
	US 1996-740883	A3	19961104	<--		
	US 1997-861414	A2	19970521	<--		
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OS MARPAT 131:5147
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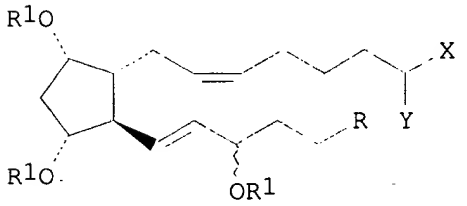

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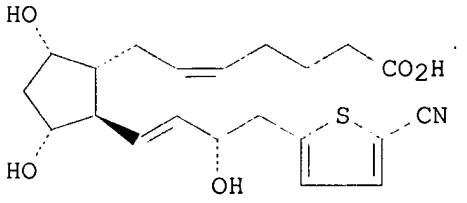


II

AB F-type prostaglandins I [R = heteroaryl such as thienyl; R1 = H, alkyl; X = OH, alkyloxy; Y = :O, H2] were prepd. and formulated for use as ocular **hypertensive** agents. Thus, thienylprostaglandin II was prepd.

starting from [4-(2,5-dichloro-3-thienyl)-2-oxobutyl]-phosphonic acid di-Me ester and (3a.alpha.,4.alpha.,5.beta.,6a.alpha.)-hexahydro-2-oxo-5-[(tetrahydro-2H-pyran-2-yl)oxy]-2H-cyclopenta[b]furan-4-carboxaldehyde. The prepd. compds. were tested for binding activity to various **prostanoid receptors**, including **EP1**, EP2, and EP3.

ST prostaglandin ocular **hypertensive** prepn; prostanoid receptor binding prostaglandin prepn

IT Prostanoid receptors
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(EP2; prepn. of cyclopentane heptan(ene)oic acid, 2-heteroarylalkenyl derivs. for use as ocular **hypertensive** agents)

IT Prostanoid receptors
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(EP3; prepn. of cyclopentane heptan(ene)oic acid, 2-heteroarylalkenyl derivs. for use as ocular **hypertensive** agents)

IT Prostaglandins
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(F-type; prepn. of cyclopentane heptan(ene)oic acid, 2-heteroarylalkenyl derivs. for use as ocular **hypertensive** agents)

IT Prostanoid receptors
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(prepn. of cyclopentane heptan(ene)oic acid, 2-heteroarylalkenyl derivs. for use as ocular **hypertensive** agents)

IT **225660-96-8P 225660-97-9P 225660-98-0P**
225660-99-1P 225661-00-7P 225661-65-4P
225661-66-5P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(prepn. of cyclopentane heptan(ene)oic acid, 2-heteroarylalkenyl derivs. for use as ocular **hypertensive** agents)

IT **185067-61-2P** 225661-01-8P 225661-02-9P 225661-03-0P
225661-04-1P 225661-05-2P 225661-06-3P 225661-07-4P 225661-08-5P
225661-09-6P **225661-10-9P 225661-11-0P**
225661-12-1P 225661-13-2P 225661-14-3P
225661-15-4P 225661-16-5P **225661-17-6P** 225661-19-8P
225661-22-3P 225661-24-5P 225661-27-8P
225661-30-3P 225661-32-5P 225661-34-7P
225661-36-9P **225661-39-2P** 225661-41-6P 225661-43-8P
225661-44-9P 225661-46-1P 225661-48-3P
225661-50-7P **225661-51-8P 225661-52-9P** 225661-54-1P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of cyclopentane heptan(ene)oic acid, 2-heteroarylalkenyl derivs. for use as ocular **hypertensive** agents)

IT 75-04-7, Ethylamine, reactions 75-30-9, 2-Iodopropane 141-43-5, 2-Hydroxyethylamine, reactions 17814-85-6 143393-77-5 185067-71-4 185068-04-6 225661-67-6 225661-69-8 225661-70-1 225661-71-2
225661-75-6 225661-77-8 225661-79-0
225661-82-5 225661-83-6 **225661-84-7**
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of cyclopentane heptan(ene)oic acid, 2-heteroarylalkenyl derivs. for use as ocular **hypertensive** agents)

IT 225661-55-2P 225661-56-3P **225661-57-4P** 225661-59-6P

225661-60-9P 225661-61-0P 225661-62-1P 225661-63-2P
225661-64-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of cyclopentane heptan(ene)oic acid, 2-heteroarylalkenyl derivs. for use as ocular **hypertensive** agents)

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD

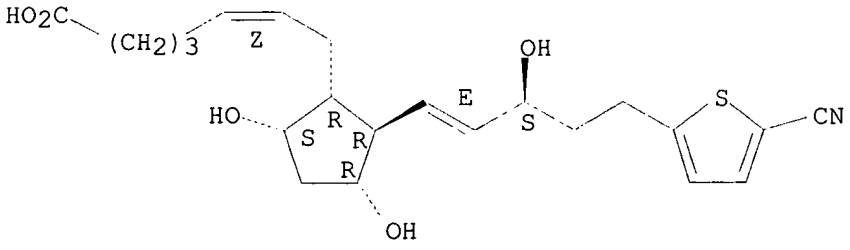
RE

(1) Allergan Inc; WO 9636599 A 1996 HCAPLUS
(2) Allergan Inc; WO 9731895 A 1997 HCAPLUS
(3) Burk, R; US 5834498 A 1998 HCAPLUS

IT **225660-96-8P 225660-97-9P 225660-98-0P**
225660-99-1P 225661-00-7P 225661-65-4P
225661-66-5P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(prepn. of cyclopentane heptan(ene)oic acid, 2-heteroarylalkenyl derivs. for use as ocular **hypertensive** agents)

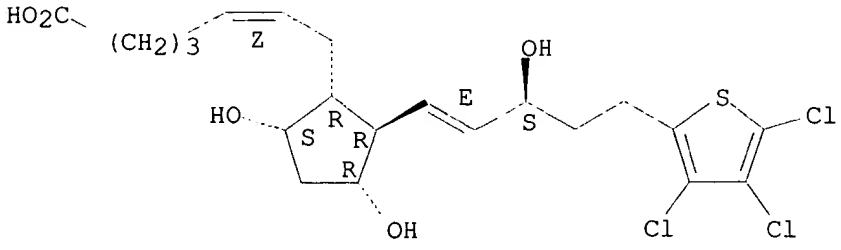
RN 225660-96-8 HCAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-2-[(1E,3S)-5-(5-cyano-2-thienyl)-3-hydroxy-1-pentenyl]-3,5-dihydroxycyclopentyl]-, (5Z)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.



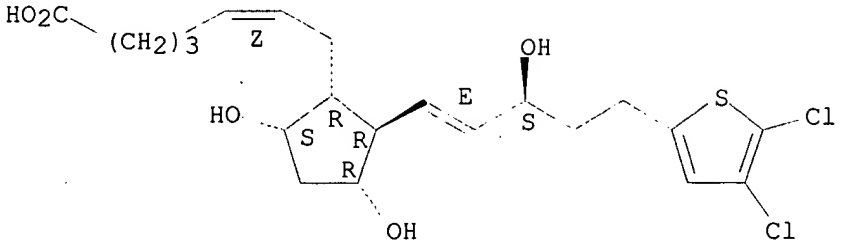
RN 225660-97-9 HCAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(1E,3S)-3-hydroxy-5-(3,4,5-trichloro-2-thienyl)-1-pentenyl]cyclopentyl]-, (5Z)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.



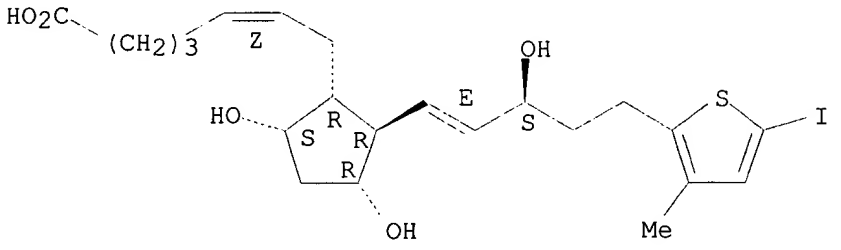
RN 225660-98-0 HCAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-2-[(1E,3S)-5-(4,5-dichloro-2-thienyl)-3-hydroxy-1-pentenyl]-3,5-dihydroxycyclopentyl]-, (5Z)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.



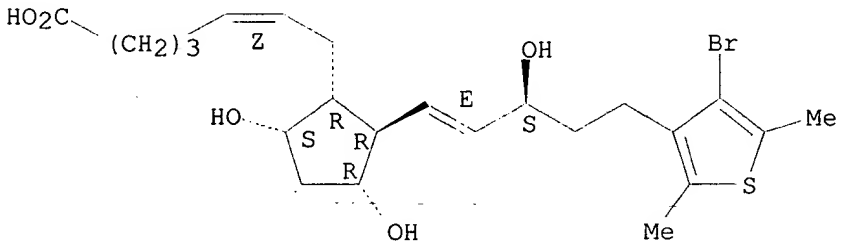
RN 225660-99-1 HCAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(1E,3S)-3-hydroxy-5-(5-iodo-3-methyl-2-thienyl)-1-pentenyl]cyclopentyl]-, (5Z)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.



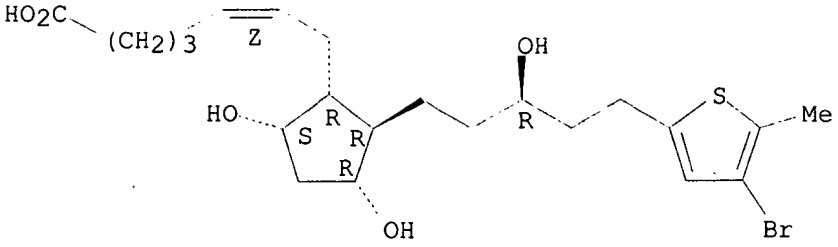
RN 225661-00-7 HCAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-2-[(1E,3S)-5-(4-bromo-2,5-dimethyl-3-thienyl)-3-hydroxy-1-pentenyl]-3,5-dihydroxycyclopentyl]-, (5Z)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.



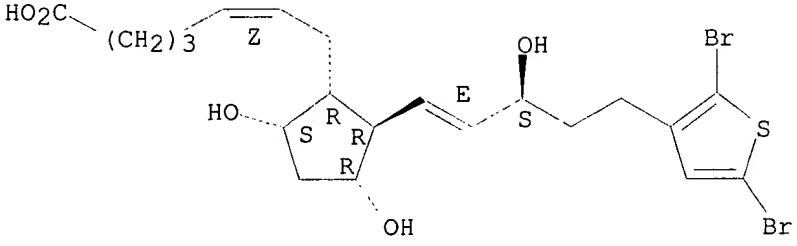
RN 225661-65-4 HCAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-2-[(3R)-5-(4-bromo-5-methyl-2-thienyl)-3-hydroxypentyl]-3,5-dihydroxycyclopentyl]-, (5Z)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.



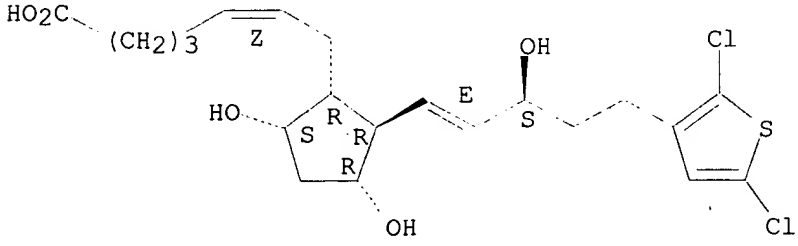
RN 225661-66-5 HCAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-2-[(1E,3S)-5-(2,5-dibromo-3-thienyl)-3-hydroxy-1-pentenyl]-3,5-dihydroxycyclopentyl]-, (5Z)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.



IT **185067-61-2P 225661-10-9P 225661-11-0P**
225661-12-1P 225661-13-2P 225661-14-3P
225661-15-4P 225661-17-6P 225661-22-3P
225661-24-5P 225661-27-8P 225661-30-3P
225661-32-5P 225661-34-7P 225661-39-2P
225661-44-9P 225661-46-1P 225661-48-3P
225661-51-8P 225661-52-9P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of cyclopentane heptan(ene)oic acid, 2-heteroarylalkenyl derivs. for use as ocular **hypertensive** agents)
RN 185067-61-2 HCAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-2-[(1E,3S)-5-(2,5-dichloro-3-thienyl)-3-hydroxy-1-pentenyl]-3,5-dihydroxycyclopentyl]-, (5Z)-rel- (9CI) (CA INDEX NAME)

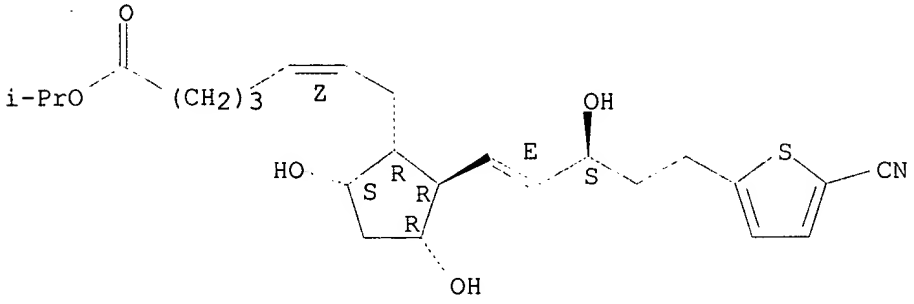
Relative stereochemistry.
Double bond geometry as shown.



RN 225661-10-9 HCAPLUS

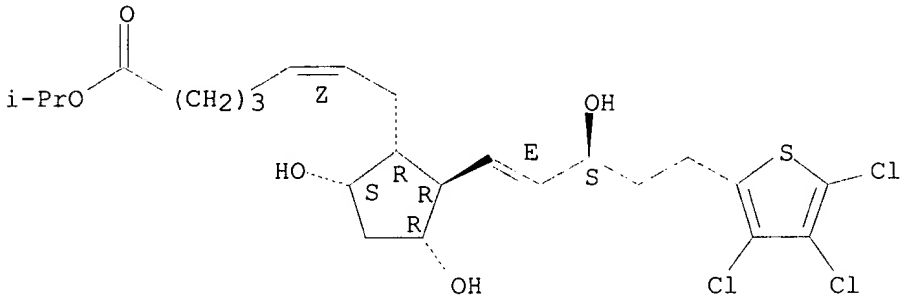
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-2-[(1E,3S)-5-(5-cyano-2-thienyl)-3-hydroxy-1-pentenyl]-3,5-dihydroxycyclopentyl]-, 1-methylethyl ester, (5Z)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.



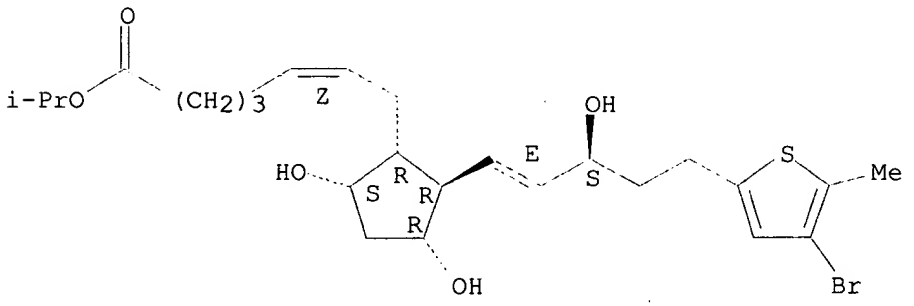
RN 225661-11-0 HCAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(1E,3S)-3-hydroxy-5-(3,4,5-trichloro-2-thienyl)-1-pentenyl]cyclopentyl]-, 1-methylethyl ester, (5Z)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.



RN 225661-12-1 HCAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-2-[(1E,3S)-5-(4-bromo-5-methyl-2-thienyl)-3-hydroxy-1-pentenyl]-3,5-dihydroxycyclopentyl]-, 1-methylethyl ester, (5Z)-rel- (9CI) (CA INDEX NAME)

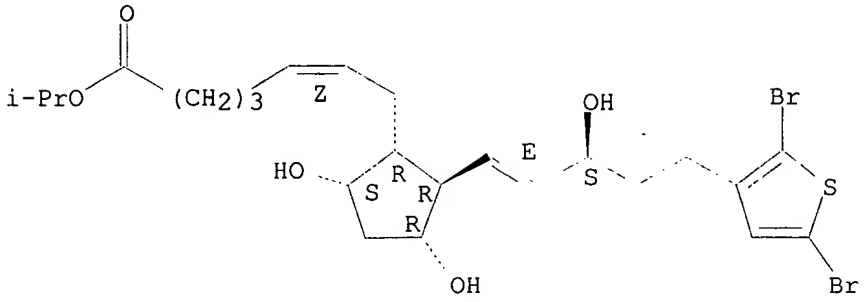
Relative stereochemistry.
Double bond geometry as shown.



RN 225661-13-2 HCAPLUS

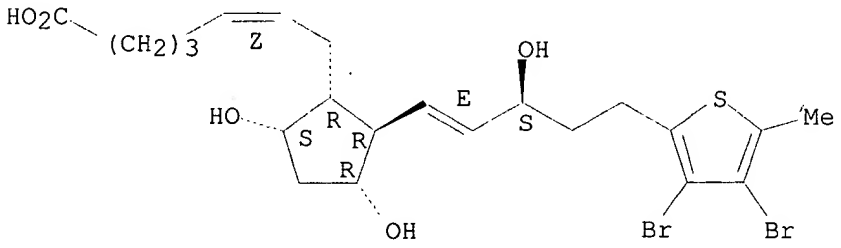
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-2-[(1E,3S)-5-(2,5-dibromo-3-thienyl)-3-hydroxy-1-pentenyl]-3,5-dihydroxycyclopentyl]-, 1-methylethyl ester, (5Z)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.



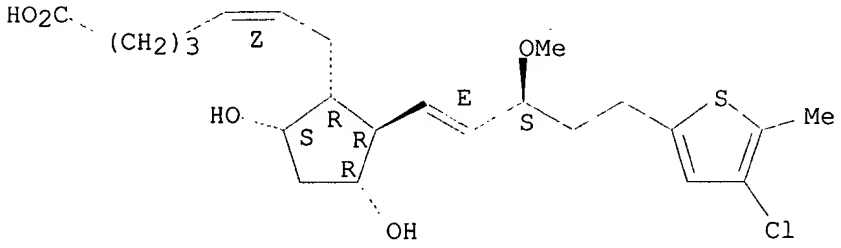
RN 225661-14-3 HCAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-2-[(1E,3S)-5-(3,4-dibromo-5-methyl-2-thienyl)-3-hydroxy-1-pentenyl]-3,5-dihydroxycyclopentyl]-, (5Z)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.



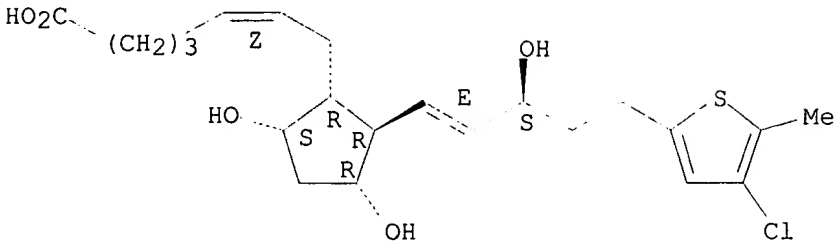
RN 225661-15-4 HCAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-2-[(1E,3S)-5-(4-chloro-5-methyl-2-thienyl)-3-methoxy-1-pentenyl]-3,5-dihydroxycyclopentyl]-, (5Z)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.



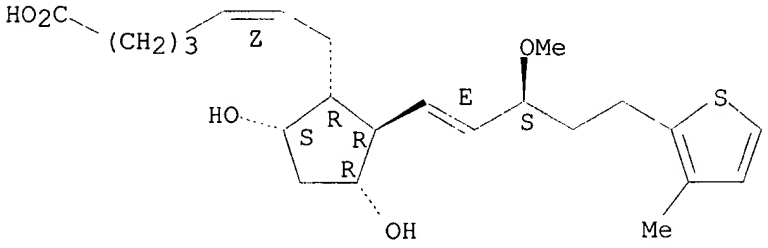
RN 225661-17-6 HCAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-2-[(1E,3S)-5-(4-chloro-5-methyl-2-thienyl)-3-hydroxy-1-pentenyl]-3,5-dihydroxycyclopentyl]-, (5Z)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.



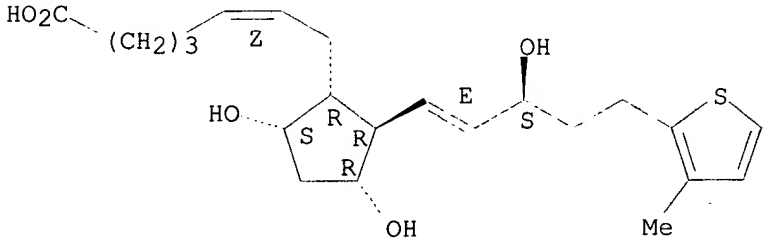
RN 225661-22-3 HCAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(1E,3S)-3-methoxy-5-(3-methyl-2-thienyl)-1-pentenyl]cyclopentyl]-, (5Z)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.



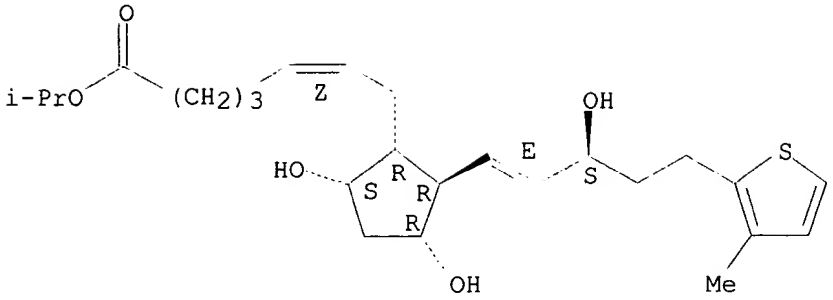
RN 225661-24-5 HCAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(1E,3S)-3-hydroxy-5-(3-methyl-2-thienyl)-1-pentenyl]cyclopentyl]-, (5Z)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.



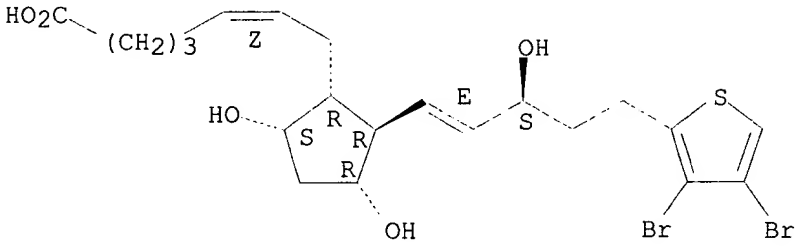
RN 225661-27-8 HCAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5R)-3,5-dihydroxy-2-[(1E,3S)-3-hydroxy-5-(3-methyl-2-thienyl)-1-pentenyl]cyclopentyl]-, 1-methylethyl ester, (5Z)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.



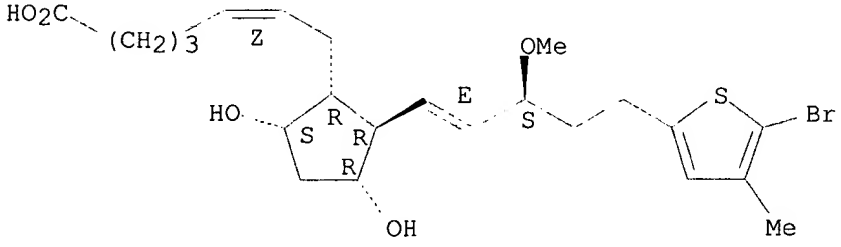
RN 225661-30-3 HCAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-2-[(1E,3S)-5-(3,4-dibromo-2-thienyl)-3-hydroxy-1-pentenyl]-3,5-dihydroxycyclopentyl]-, (5Z)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.



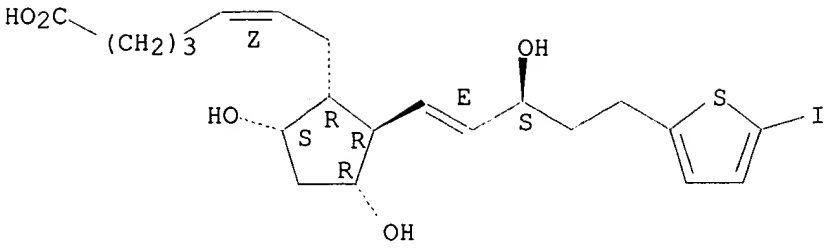
RN 225661-32-5 HCAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-2-[(1E,3S)-5-(5-bromo-4-methyl-2-thienyl)-3-methoxy-1-pentenyl]-3,5-dihydroxycyclopentyl]-, (5Z)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.



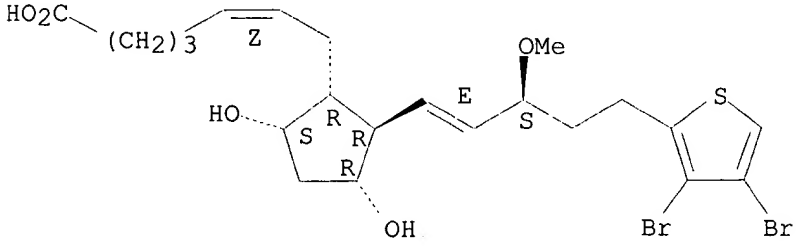
RN 225661-34-7 HCAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(1E,3S)-3-hydroxy-5-(5-iodo-2-thienyl)-1-pentenyl]cyclopentyl]-, (5Z)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.



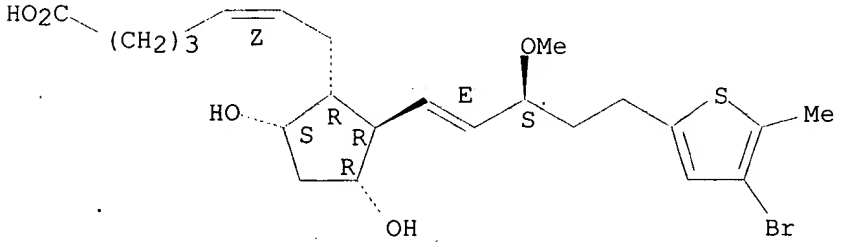
RN 225661-39-2 HCAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-2-[(1E,3S)-5-(3,4-dibromo-2-thienyl)-3-methoxy-1-pentenyl]-3,5-dihydroxycyclopentyl]-, (5Z)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.



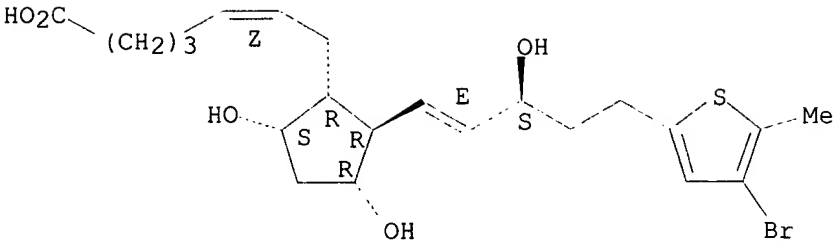
RN 225661-44-9 HCAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-2-[(1E,3S)-5-(4-bromo-5-methyl-2-thienyl)-3-methoxy-1-pentenyl]-3,5-dihydroxycyclopentyl]-, (5Z)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.



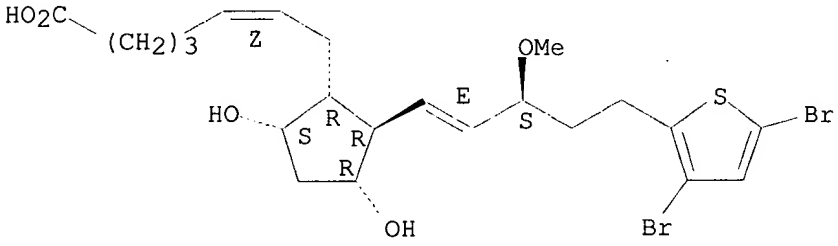
RN 225661-46-1 HCAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-2-[(1E,3S)-5-(4-bromo-5-methyl-2-thienyl)-3-hydroxy-1-pentenyl]-3,5-dihydroxycyclopentyl]-, (5Z)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.



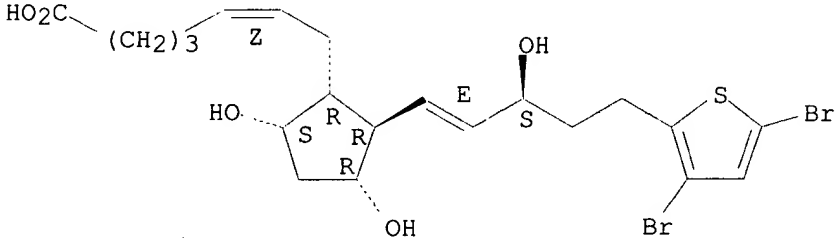
RN 225661-48-3 HCAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-2-[(1E,3S)-5-(3,5-dibromo-2-thienyl)-3-methoxy-1-pentenyl]-3,5-dihydroxycyclopentyl]-, (5Z)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.



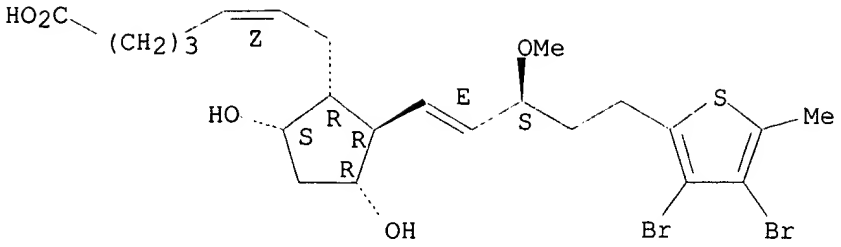
RN 225661-51-8 HCAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-2-[(1E,3S)-5-(3,5-dibromo-2-thienyl)-3-hydroxy-1-pentenyl]-3,5-dihydroxycyclopentyl]-, (5Z)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.



RN 225661-52-9 HCAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-2-[(1E,3S)-5-(3,4-dibromo-5-methyl-2-thienyl)-3-methoxy-1-pentenyl]-3,5-dihydroxycyclopentyl]-, (5Z)-rel- (9CI) (CA INDEX NAME)

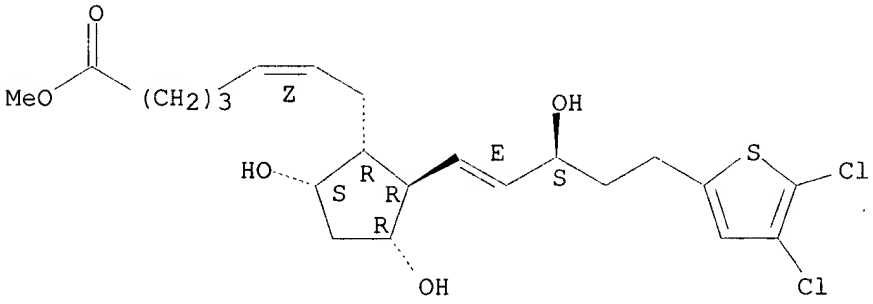
Relative stereochemistry.
Double bond geometry as shown.



IT **225661-75-6 225661-77-8 225661-79-0**
225661-82-5 225661-84-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of cyclopentane heptan(ene)oic acid, 2-heteroarylalkenyl derivs. for use as ocular **hypertensive** agents)

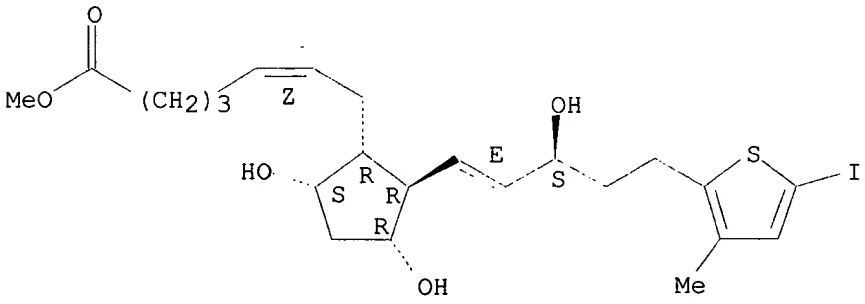
RN 225661-75-6 HCAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-2-[(1E,3S)-5-(4,5-dichloro-2-thienyl)-3-hydroxy-1-pentenyl]-3,5-dihydroxycyclopentyl]-, methyl ester, (5Z)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.



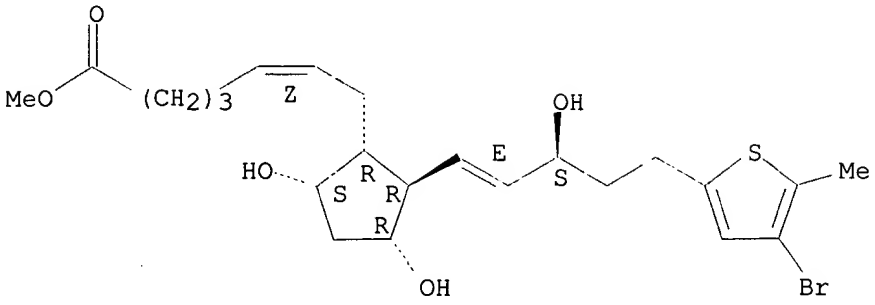
RN 225661-77-8 HCAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(1E,3S)-3-hydroxy-5-(5-iodo-3-methyl-2-thienyl)-1-pentenyl]cyclopentyl]-, methyl ester, (5Z)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.



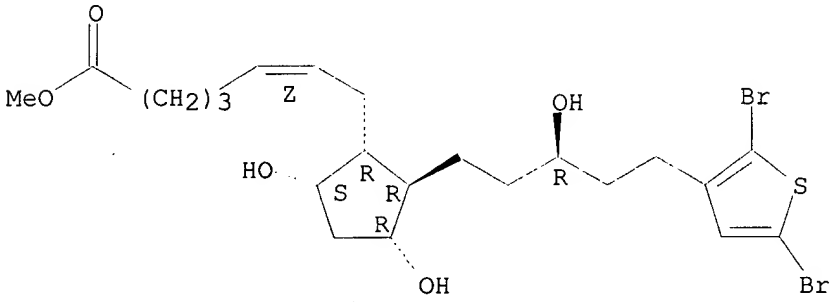
RN 225661-79-0 HCAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-2-[(1E,3S)-5-(4-bromo-5-methyl-2-thienyl)-3-hydroxy-1-pentenyl]-3,5-dihydroxycyclopentyl]-, methyl ester, (5Z)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.



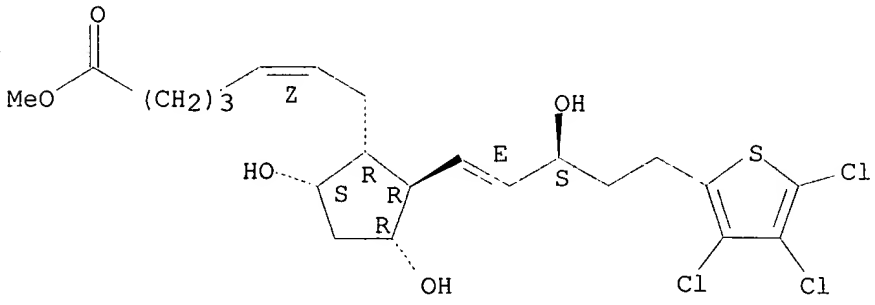
RN 225661-82-5 HCAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-2-[(3R)-5-(2,5-dibromo-3-thienyl)-3-hydroxypentyl]-3,5-dihydroxycyclopentyl]-, methyl ester, (5Z)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.



RN 225661-84-7 HCAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(1E,3S)-3-hydroxy-5-(3,4,5-trichloro-2-thienyl)-1-pentenyl]cyclopentyl]-, methyl ester, (5Z)-rel- (9CI) (CA INDEX NAME)

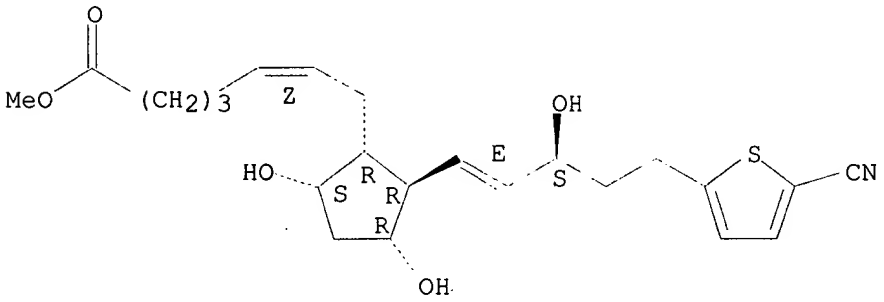
Relative stereochemistry.
Double bond geometry as shown.



IT **225661-57-4P 225661-64-3P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of cyclopentane heptan(ene)oic acid, 2-heteroarylalkenyl

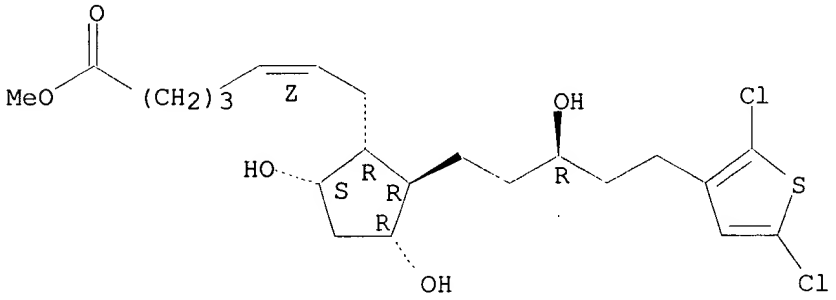
derivs. for use as ocular **hypertensive** agents)
RN 225661-57-4 HCAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-2-[(1E,3S)-5-(5-cyano-2-thienyl)-3-hydroxy-1-pentenyl]-3,5-dihydroxycyclopentyl]-, methyl ester, (5Z)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.



RN 225661-64-3 HCAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-2-[(3R)-5-(2,5-dichloro-3-thienyl)-3-hydroxypentyl]-3,5-dihydroxycyclopentyl]-, methyl ester, (5Z)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.



L169 ANSWER 3 OF 13 HCAPLUS COPYRIGHT 2002 ACS
AN 1997:720997 HCAPLUS
DN 128:10580
TI Key role cyclooxygenase-2 in PGE2 and PGF2.alpha. receptor regulation and cerebral blood flow of the newborn
AU Li, Ding-You; Hardy, Pierre; Abran, Daniel; Martinez-Bermudez, Ana-Katherine; Guerguerian, Anne-Marie; Bhattacharya, Mousumi; Almazan, Guillermina; Menezes, Ravi; Peri, Krishna G.; Varma, Daya R.; Chemtob, Sylvain
CS Dep. Pharmacol. Therapeutics, McGill Univ., Montreal, H3G 1Y6, Can.
SO American Journal of Physiology (**1997**), 273(4, Pt. 2), R1283-R1290
CODEN: AJPHAP; ISSN: 0002-9513
PB American Physiological Society
DT Journal
LA English
CC 2-9 (Mammalian Hormones)
AB Ibuprofen, a cyclooxygenase (COX) inhibitor nonselective for either COX-1 or COX-2 isoform, upregulates cerebrovascular prostaglandin E2 (PGE2) and

PGF2.alpha. receptors in newborn pigs. COX-2 was shown to be the predominant form of COX and the main catalyst of prostaglandin synthesis in the newborn brain. We proceeded to establish direct evidence that COX-2-generated prostaglandins govern PGE2 and PGF2.alpha. receptor d. and function in the cerebral brain vasculature by using newborn. Hence, we detd. PGE2 and PGF2.alpha. receptor d. and functions in brain vasculature by using newborn pigs treated with saline, ibuprofen, COX-1 inhibitor (valerylsalicylate), or COX-2 inhibitors (DUP-697 and NS-398). Newborn brain PGE2 and PGF2.alpha. concns. were significantly reduced by ibuprofen, DUP-697, and NS-398 but not by valerylsalicylate. In newborn pigs treated with DUP-697, NS-398, and ibuprofen, PGE2 and PGF2.alpha. receptor densities in brain microvessels were increased to adult levels; there was also a significant increase in inositol 1,4,5-trisphosphate (IP3) prodn. and cerebral vasoconstrictor effects of 17-phenyltrinor-PGE2 (**EP1** receptor agonist), M&B-28767 (EP3 receptor agonist), PGF2.alpha., and fenprostalene (PGF2.alpha. analog). Treatment with ibuprofen or DUP-697 also increased the upper blood **pressure** limit of cerebral cortex and periventricular blood flow autoregulation from 85 to .gtoreq.125 mmHg (uppermost blood **pressure** studied). However, valerylsalicylate treatment did not affect cerebrovascular PGF2 and PGF2.alpha. receptors, IP3 prodn., or vasoconstrictor effects in newborn animals. These in vivo and in vitro observations indicate that COX-2 is mainly responsible for the regulation of PGE2 and PGF2.alpha. receptors and their functions in the newborn cerebral vasculature.

ST cyclooxygenase prostaglandin receptor brain circulation newborn; PGF2 receptor brain circulation newborn cyclooxygenase; PGE2 receptor brain circulation newborn cyclooxygenase

IT **Prostanoid receptors**
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(**EP1**; cyclooxygenase-2 in PGE2 and PGF2.alpha. **receptor** regulation and cerebral blood flow in newborn pigs)

IT Prostanoid receptors
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(EP3; cyclooxygenase-2 in PGE2 and PGF2.alpha. receptor regulation and cerebral blood flow in newborn pigs)

IT Prostanoid receptors
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(FP; cyclooxygenase-2 in PGE2 and PGF2.alpha. receptor regulation and cerebral blood flow in newborn pigs)

IT Circulation
(cerebral; cyclooxygenase-2 in PGE2 and PGF2.alpha. receptor regulation and cerebral blood flow in newborn pigs)

IT Brain
Newborn
Vasoconstriction
(cyclooxygenase-2 in PGE2 and PGF2.alpha. receptor regulation and cerebral blood flow in newborn pigs)

IT Blood vessel
(microvessel; cyclooxygenase-2 in PGE2 and PGF2.alpha. receptor regulation and cerebral blood flow in newborn pigs)

IT 39391-18-9
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(2; cyclooxygenase-2 in PGE2 and PGF2.alpha. receptor regulation and cerebral blood flow in newborn pigs)

IT **363-24-6**, PGE2 **551-11-1**, PGF2.alpha. 38315-43-4,

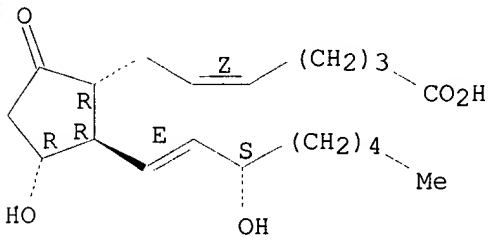
17-Phenyltrinor-PGE2 **60972-43-2**, M&B-28767 69381-94-8, Fenprostalene
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(cyclooxygenase-2 in PGE2 and PGF2.alpha. receptor regulation and cerebral blood flow in newborn pigs)

IT 88269-39-0, Inositol 1,4,5-trisphosphate
RL: BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative)
(cyclooxygenase-2 in PGE2 and PGF2.alpha. receptor regulation and cerebral blood flow in newborn pigs)

IT **363-24-6**, PGE2 **551-11-1**, PGF2.alpha. **60972-43-2**, M&B-28767
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(cyclooxygenase-2 in PGE2 and PGF2.alpha. receptor regulation and cerebral blood flow in newborn pigs)

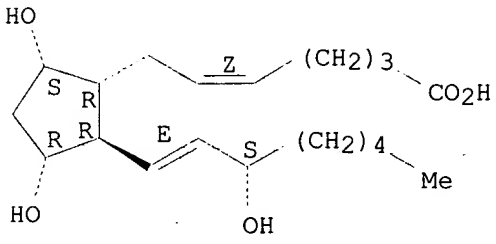
RN 363-24-6 HCAPLUS
CN Prosta-5,13-dien-1-oic acid, 11,15-dihydroxy-9-oxo-, (5Z,11.alpha.,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



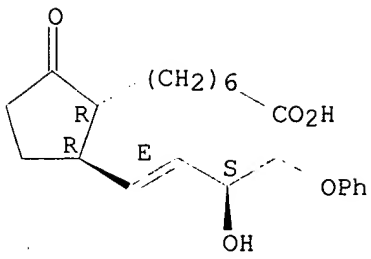
RN 551-11-1 HCAPLUS
CN Prosta-5,13-dien-1-oic acid, 9,11,15-trihydroxy-, (5Z,9.alpha.,11.alpha.,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 60972-43-2 HCAPLUS
CN Cyclopentaneheptanoic acid, 2-[(1E,3R)-3-hydroxy-4-phenoxy-1-butenyl]-5-oxo-, (1S,2S)-rel- (9CI) (CA INDEX NAME)

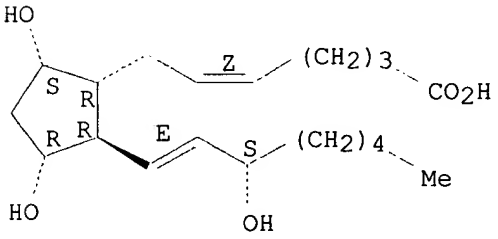
Relative stereochemistry.
Double bond geometry as shown.



L169 ANSWER 4 OF 13 HCAPLUS COPYRIGHT 2002 ACS
AN 1997:272439 HCAPLUS
DN 126:339206
TI Prostaglandin effects on the contractility of bovine trabecular meshwork and ciliary muscle
AU Krauss, Achim H.-P.; Wiederholt, Michael; Strum, Annette; Woodward, David F.
CS Allergan, Inc., Irvine, CA, 92612, USA
SO Experimental Eye Research (**1997**), 64(3), 447-453
CODEN: EXERA6; ISSN: 0014-4835
PB Academic
DT Journal
LA English
CC 2-9 (Mammalian Hormones)
AB The ocular **hypotensive** activity of prostaglandins (PGs) has previously been demonstrated in various species including man. The underlying mechanism of action of **prostanoids** other than PGF2.alpha. remains contentious. Because the trabecular meshwork and ciliary muscle are believed to have a role in the regulation of aq. humor outflow, the aim of this study was to identify the PG-**receptor** subtypes present in these tissues using **receptor**-selective agonists. Contractions of isolated strips of bovine trabecular meshwork and ciliary muscle were recorded isometrically in continuously perfused tissue chambers. Contractile activity of PGs was detd. relative to a maximally effective concn. of carbachol (1 .mu.M) as a std. agonist. The following **prostanoids** were employed: PGF2.alpha., 17-Ph PGF2.alpha. (FP-**receptor** agonists), sulprostone (EP3 > **EP1**-agonist), AH13205 (EP2-agonist), 11-deoxy PGE1 (non-selective EP-agonist), and U-46619 (TP-agonist). The thromboxane-mimetic U-46619 elicited a strong contraction of the trabecular meshwork with the highest concn. (1 .mu.M) being almost twice as efficacious (186.6%) as the maximal carbachol concn., whereas the effect on the ciliary muscle was small. The U-46619 induced trabecular meshwork contraction could be blocked with a potent and selective TP-**receptor** antagonist, 1 .mu.M SQ29548, indicating the involvement of TP-**receptors**. The other PG-analogs studied had either no or a small but statistically significant effect. Thus, 17-Ph PGF2.alpha. (1 .mu.M) weakly contracted the ciliary muscle (4.8%), sulprostone (1 .mu.M) the trabecular meshwork (10.1%). 11-Deoxy PGE1 (1 .mu.M) and AH13205 (10 .mu.m) elicited relaxations in both tissues precontracted with carbachol (1 .mu.M). The relaxant effects were more pronounced in trabecular meshwork (15.6% for 11-deoxy PGE1 and 21.4% for AH13205) than ciliary muscle (6.8 and 7.4% resp.). PGF2.alpha. did not elicit a significant response in either tissue. The studies suggest the existence of TP- and EP2-**receptors** in the bovine trabecular meshwork and potentially FP- and EP2-**receptors** in the ciliary muscle. In conclusion, thromboxane-mimetics and EP2-agonists have opposing activities on contractile elements in the meshwork and may modulate trabecular outflow in a functionally antagonistic manner. **Prostanoid** effects on ciliary muscle appear rather modest compared to parasympathomimetic drugs. It is conceivable that TP-agonists may

substantially affect trabecular outflow.
ST prostaglandin eye ciliary muscle trabecular meshwork; PGF 2alpha eye
IT Eye
Eye
(ciliary muscle; prostaglandin effects on contractility of bovine trabecular meshwork and ciliary muscle)
IT Muscle
Muscle
(ciliary; prostaglandin effects on contractility of bovine trabecular meshwork and ciliary muscle)
IT Prostaglandins
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(prostaglandin effects on contractility of bovine trabecular meshwork and ciliary muscle)
IT Thromboxane receptors
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(prostaglandin effects on contractility of bovine trabecular meshwork and ciliary muscle)
IT Eye
(trabecular meshwork; prostaglandin effects on contractility of bovine trabecular meshwork and ciliary muscle)
IT **551-11-1**, PGF2.alpha. **37786-00-8**, 11-Deoxy PGE1
55582-75-7, 17-Phenyl PGF2.alpha. 56985-40-1, U-46619
60325-46-4, Sulprostone 148436-63-9, AH13205
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(prostaglandin effects on contractility of bovine trabecular meshwork and ciliary muscle)
IT **551-11-1**, PGF2.alpha. **37786-00-8**, 11-Deoxy PGE1
55582-75-7, 17-Phenyl PGF2.alpha.
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(prostaglandin effects on contractility of bovine trabecular meshwork and ciliary muscle)
RN 551-11-1 HCAPLUS
CN Prosta-5,13-dien-1-oic acid, 9,11,15-trihydroxy-, (5Z,9.alpha.,11.alpha.,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 37786-00-8 HCAPLUS
CN Prost-13-en-1-oic acid, 15-hydroxy-9-oxo-, (13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

L169 ANSWER 6 OF 13 HCAPLUS COPYRIGHT 2002 ACS
AN 1995:621888 HCAPLUS
DN 123:169428
TI 7-[Carboxyalkyl or alkenyl]-6-[alkyl or alkenyl]-3-oxo-2,4-dioxabicyclo[3.2.1]octanes and their derivatives
IN Burk, Robert M.; Krauss, Achim H.; Woodward, David F.
PA Allergan, Inc., USA
SO U.S., 10 pp.
CODEN: USXXAM
DT Patent
LA English
IC ICM A61K031-335
ICS C07D493-08
NCL 514450000
CC 26-3 (Biomolecules and Their Synthetic Analogs)
Section cross-reference(s): 2
FAN.CNT 6

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PI	US 5416106	A	19950516	US 1993-174534	19931228	<--
	CA 2180010	AA	19950706	CA 1994-2180010	19941205	<--
	WO 9518103	A1	19950706	WO 1994-US14012	19941205	<--
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	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG					
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	JP 09507229	T2	19970722	JP 1994-518044	19941205	<--
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	US 5516791	A	19960514	US 1995-378414	19950126	<--
	US 5650431	A	19970722	US 1996-645467	19960513	<--
	US 5741812	A	19980421	US 1997-832431	19970402	<--
	US 6017953	A	20000125	US 1997-926662	19970909	<--
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	US 6462077	B1	20021008	US 2001-899713	20010705	<--
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	US 1995-378414	A2	19950126	<--		
	US 1996-645467	A2	19960513	<--		
	US 1997-832431	A2	19970402	<--		
	US 1997-926662	A1	19970909	<--		
	US 1998-38068	B1	19980311			
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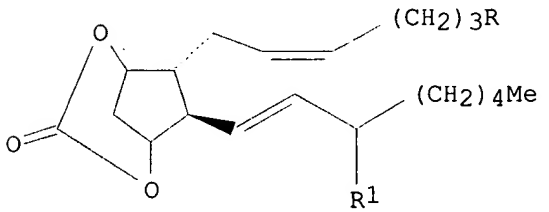
OS MARPAT 123:169428
GI



I

AB Dioxabicyclooctanes I [R = (un)substituted CO2H, CH2OH, CH2NH2; R1 = OH, acyloxy, O] were prepd. for use in treating **ocular hypertension**. Thus, PGF2.alpha. was esterified, silylated, treated with triphosgene, subjected to borohydride redn., and deblocked to give I [R = CH2OH, R1 = OH]. At 0.1% this compd. decreased **intraocular** pressure in dogs by 8.5mm 6 h after administration.

ST thromboxane analog dioxabicyclooctane; **ocular hypertension** dioxabicyclooctane; prostaglandin receptor dioxabicyclooctane; platelet aggregation inhibitor dioxabicyclooctane

IT Blood platelet aggregation inhibitors
Glaucoma (disease)
(analogs; dioxabicyclooctane analogs of thromboxanes in treatment of **ocular hypertension**)

IT Thromboxanes
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(analogs; dioxabicyclooctane analogs of thromboxanes in treatment of **ocular hypertension**)

IT **Prostaglandin receptors**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(dioxabicyclooctane analogs of thromboxanes in treatment of **ocular hypertension**)

IT **Receptors**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(**prostaglandin**, dioxabicyclooctane analogs of thromboxanes in treatment of **ocular hypertension**)

IT 167270-47-5P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(dioxabicyclooctane analogs of thromboxanes in treatment of **ocular hypertension**)

IT 159359-94-1P 159359-95-2P 159359-97-4P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(dioxabicyclooctane analogs of thromboxanes in treatment of **ocular hypertension**)

IT **551-11-1**, PGF2.alpha.
RL: RCT (Reactant); RACT (Reactant or reagent)
(dioxabicyclooctane analogs of thromboxanes in treatment of **ocular hypertension**)

IT **33854-16-9P**, PGF2.alpha. methyl ester **65147-38-8P**
71845-64-2P 135877-48-4P 136198-86-2P
147555-69-9P **147555-72-4P** 159359-93-0P 159359-96-3P
167270-42-0P 167270-43-1P 167270-45-3P 167270-46-4P 167270-48-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(dioxabicyclooctane analogs of thromboxanes in treatment of **ocular hypertension**)

IT 159359-98-5P 167270-44-2P 167270-49-7P 167270-50-0P 167270-51-1P
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(dioxabicyclooctane analogs of thromboxanes in treatment of **ocular hypertension**)

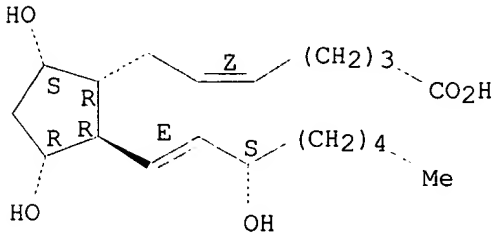
IT **551-11-1**, PGF2.alpha.
RL: RCT (Reactant); RACT (Reactant or reagent)
(dioxabicyclooctane analogs of thromboxanes in treatment of **ocular hypertension**)

RN 551-11-1 HCAPLUS

CN Prosta-5,13-dien-1-oic acid, 9,11,15-trihydroxy-,

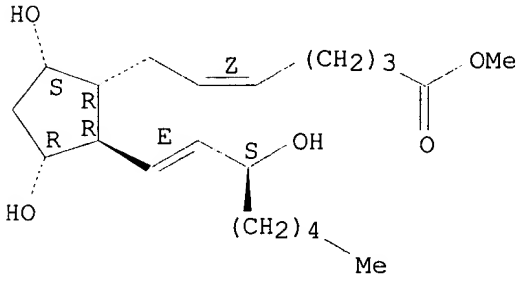
(5Z,9.alpha.,11.alpha.,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



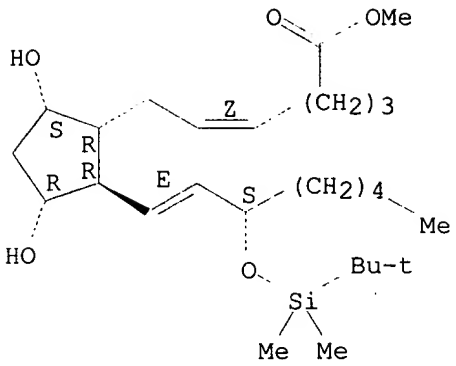
IT **33854-16-9P**, PGF2.alpha. methyl ester **65147-38-8P**
71845-64-2P 135877-48-4P 136198-86-2P
147555-72-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(dioxabicyclooctane analogs of thromboxanes in treatment of **ocular hypertension**)
RN 33854-16-9 HCAPLUS
CN Prosta-5,13-dien-1-oic acid, 9,11,15-trihydroxy-, methyl ester, (5Z,9.alpha.,11.alpha.,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



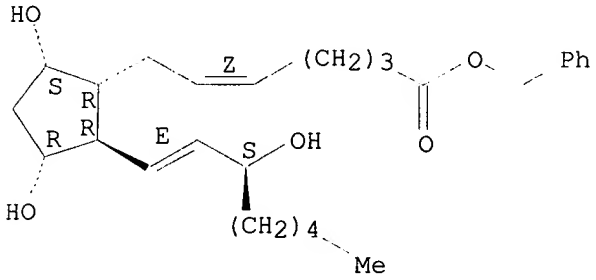
RN 65147-38-8 HCAPLUS
CN Prosta-5,13-dien-1-oic acid, 15-[[(1,1-dimethylethyl)dimethylsilyl]oxy]-9,11-dihydroxy-, methyl ester, (5Z,9.alpha.,11.alpha.,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



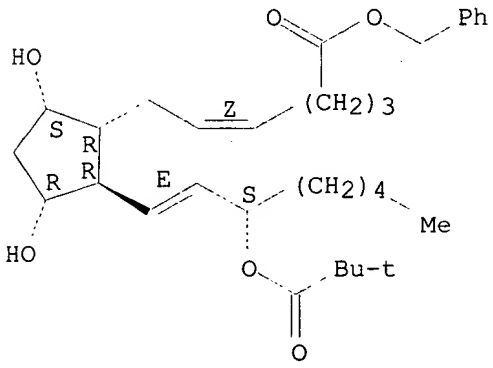
RN 71845-64-2 HCAPLUS
CN Prosta-5,13-dien-1-oic acid, 9,11,15-trihydroxy-, phenylmethyl ester, (5Z,9.alpha.,11.alpha.,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 135877-48-4 HCAPLUS
CN Prosta-5,13-dien-1-oic acid, 15-(2,2-dimethyl-1-oxopropoxy)-9,11-dihydroxy-, phenylmethyl ester, (5Z,9.alpha.,11.alpha.,13E,15S)- (9CI) (CA INDEX NAME)

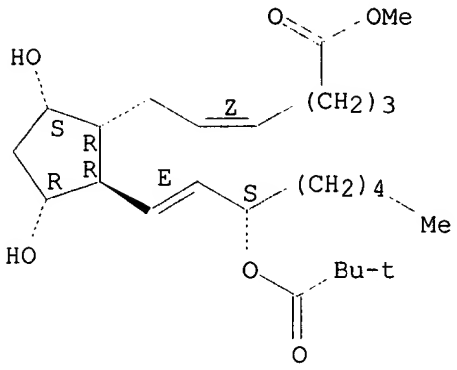
Absolute stereochemistry.
Double bond geometry as shown.



RN 136198-86-2 HCAPLUS
CN Prosta-5,13-dien-1-oic acid, 15-(2,2-dimethyl-1-oxopropoxy)-9,11-dihydroxy-, methyl ester, (5Z,9.alpha.,11.alpha.,13E,15S)- (9CI) (CA INDEX NAME)

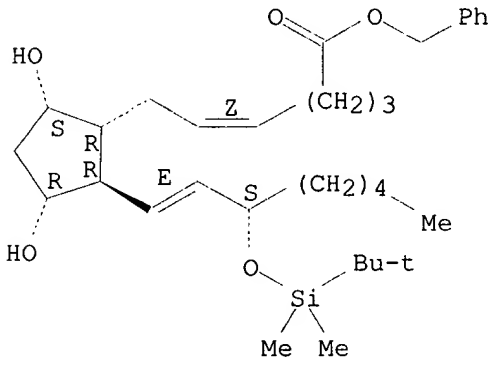
Absolute stereochemistry.

Double bond geometry as shown.



RN 147555-72-4 HCAPLUS
CN Prosta-5,13-dien-1-oic acid, 15-[[(1,1-dimethylethyl)dimethylsilyl]oxy]-9,11-dihydroxy-, phenylmethyl ester, (5Z,9.alpha.,11.alpha.,13E,15S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



L169 ANSWER 7 OF 13 HCAPLUS COPYRIGHT 2002 ACS
AN 1995:215124 HCAPLUS
DN 122:232
TI Pharmacological characterization of prostaglandin-related ocular **hypotensive** agents
AU Goh, Yasumasa; Kishino, Junji
CS Shionogi Research Laboratories, Toyonaka, 561, Japan
SO Japanese Journal of Ophthalmology (**1994**), 38(3), 236-45
CODEN: JJOPA7; ISSN: 0021-5155
PB Japanese Journal of Ophthalmology
DT Journal
LA English
CC 1-2 (Pharmacology)
AB The agonistic activity of the prostaglandin (PG)-related ocular **hypotensive** agents, S-1033, UF-021 and PhXA34, to PG receptors was investigated by using in vitro tissue responses and binding of radio-labeled ligands to membranes. UF-021 and PhXA34, which are both 1-iso-Pr esterified forms, were examd. mainly in a free acid form. The agonistic activity to PGD2 and PGI2 receptors, examd. using inhibition of ADP-induced aggregation of guinea pig platelets, was negligible for all three compds. None showed substantial agonistic activity to TXA2 receptor, as detd. from contractions of rat thorax aorta. PhXA34 showed

significant PGE2 agonistic activity. Among the three PGE2 receptor subtypes, the agonistic activity to **EP1** and EP2 receptors was about 1/1000 and 1/2000 of PGE2, as detd. from contraction of guinea pig longitudinal and circular ileum strips, resp. The other two compds. showed little agonistic activity (<1/100 000 of PGE2) to these receptors. The agonistic activity to PGF2.alpha. receptors, as detd. from contraction of cat iris sphincter strips, was substantial for S-1033 and PhXA34, being 1/45 and 1/2 of PGF2.alpha., resp., but weak for UF-021 (1/1600). To further investigate the affinity of the three compds. to PGE2 and PGF2.alpha. receptors, inhibition of [3H]PGE2.alpha. binding was examd. with membrane fractions of bovine adrenal medulla which possesses EP3 type PGE2 receptors and bovine corpus luteum which has PGF2.alpha. receptors. The activity of PhXA34 for inhibiting [3H]PGE2 binding was about 1/2000 of PGE2. S-1033 and UF-021 did not significantly inhibit [3H]PGE2 binding within the range examd. (<<1/2000 of PGE2). The activity to inhibit [3H]PGF2.alpha. binding was strong for PhXA34 (about the same as that of PGF2.alpha.), while the activity for S-1033 and UF-021 was about 1/34 and <1/280 of PGF2.alpha., resp. These results indicate that the specificity to PGF2.alpha. receptor is the highest for S-1033 followed by PhXA34, although the activity to this receptor is stronger for the latter compd. UF-021 has only a weak agonistic activity to PGF2.alpha. receptors.

ST S1033 UF021 PhXA34 prostaglandin thromboxane receptor; eye **hypotensive** S1033 UF021 PhXA34 prostaglandin

IT **Prostaglandin receptors**
Thromboxane receptors
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(ocular **hypotensive** agents S-1033, UF-021, and PhXA34 agonistic activity to prostaglandin and thromboxane receptors)

IT **Glaucoma (disease)**
(ocular **hypotensive** agents S-1033, UF-021, and PhXA34 agonistic activity to prostaglandin and thromboxane receptors in relation to **glaucoma** treatment)

IT **Receptors**
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(**prostaglandin**, ocular **hypotensive** agents S-1033, UF-021, and PhXA34 agonistic activity to **prostaglandin** and thromboxane receptors)

IT **Receptors**
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(thromboxane, ocular **hypotensive** agents S-1033, UF-021, and PhXA34 agonistic activity to **prostaglandin** and thromboxane receptors)

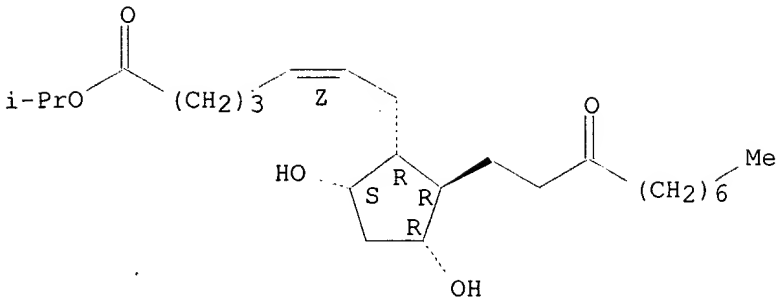
IT **120373-24-2**, UF-021 **138282-73-2**, S-1033
155551-81-8, PhXA34
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(ocular **hypotensive** agents S-1033, UF-021, and PhXA34 agonistic activity to prostaglandin and thromboxane receptors)

IT **120373-24-2**, UF-021 **138282-73-2**, S-1033
155551-81-8, PhXA34
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(ocular **hypotensive** agents S-1033, UF-021, and PhXA34 agonistic activity to prostaglandin and thromboxane receptors)

RN 120373-24-2 HCAPLUS

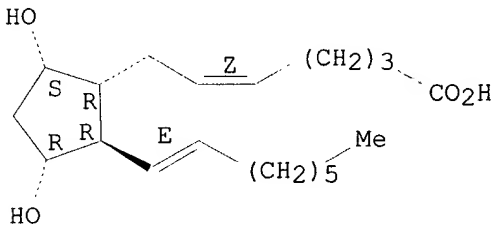
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-(3-oxodecyl)cyclopentyl]-, 1-methylethyl ester, (5Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

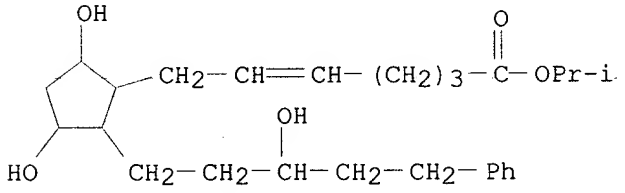


RN 138282-73-2 HCAPLUS
CN Prosta-5,13-dien-1-oic acid, 9,11-dihydroxy-, monosodium salt, (5Z,9.alpha.,11.alpha.,13E)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).
Double bond geometry as shown.



RN 155551-81-8 HCAPLUS
CN 5-Heptenoic acid, 7-[3,5-dihydroxy-2-(3-hydroxy-5-phenylpentyl)cyclopentyl]-, 1-methylethyl ester (9CI) (CA INDEX NAME)



L169 ANSWER 8 OF 13 HCAPLUS COPYRIGHT 2002 ACS
AN 1994:500557 HCAPLUS
DN 121:100557
TI EP3 receptor-mediated inhibition of the neurogenic vasopressor response in pithed rats
AU Malinowska, Barbara; Godlewski, Grzegorz; Buczko, Wlodzimierz; Schlicker, Eberhard
CS Zaklad Famakodynamiki, Akademia Medyczna, ul. Mickiewicza 2C, Bialystok, 15-230/8, Pol.
SO European Journal of Pharmacology (**1994**), 259(3), 315-19
CODEN: EJPHAZ; ISSN: 0014-2999
DT Journal
LA English

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FILE COVERS 1907 - 4 Dec 2002 VOL 137 ISS 23
FILE LAST UPDATED: 3 Dec 2002 (20021203/ED)

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CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

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=> d all hitstr tot l140

L140 ANSWER 1 OF 3  HCAPLUS  COPYRIGHT 2002 ACS
AN   1999:64692  HCAPLUS
DN   130:119579
TI   Prostaglandin derivatives devoid of side effects for the treatment of
     glaucoma
IN   Stjernschantz, Johan; Resul, Bahram; Lake,
     Staffan
PA   Pharmacia & Upjohn AB, Swed.
SO   PCT Int. Appl., 40 pp.
     CODEN: PIXXD2
DT   Patent
LA   English
IC   ICM  A61K031-557
CC   1-1 (Pharmacology)
     Section cross-reference(s): 26
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             LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL,
             PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US,
             UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,
             FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,
             CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     AU 9883683          A1   19990208      AU 1998-83683    19980710 <--
     AU 739828           B2   20011018
     EP 1014991          A1   20000705      EP 1998-934082   19980710 <--
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO
     BR 9815501          A    20010717      BR 1998-15501    19980710 <--
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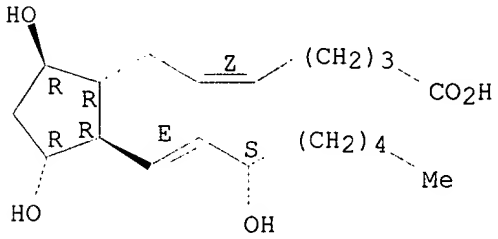
JP 2002509543 T2 20020326 JP 1999-508560 19980710 <--
PRAI SE 1997-2706 A 19970711 <--
WO 1998-SE1368 W 19980710 <--
OS MARPAT 130:119579
AB A new method and compns. for the treatment of **glaucoma** and **ocular hypertension** are described. The method is based on the usage of EP1 prostanoid receptor agonists which effectively reduce the **intraocular** pressure but have no, or reduced effect on iris pigmentation. The prostaglandin analog which is an EP1 selective agonist is applied topically on the **eye**.
ST prostaglandin treatment **glaucoma**
IT Prostanoid receptors
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(EP1; prostaglandin derivs. devoid of side effects for treatment of **glaucoma**)
IT **Antiglaucoma agents**
Glaucoma (disease)
(prostaglandin derivs. devoid of side effects for treatment of **glaucoma**)
IT Prostaglandins
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prostaglandin derivs. devoid of side effects for treatment of **glaucoma**)
IT **4510-16-1P**, Pgf2.beta. **38315-43-4P 219827-59-5P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(prostaglandin derivs. devoid of side effects for treatment of **glaucoma**)
IT **130225-92-2P 157019-93-7P 219827-55-1P**
219827-63-1P 219827-85-7P **219828-15-6P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prostaglandin derivs. devoid of side effects for treatment of **glaucoma**)
IT 75-30-9, Isopropyl iodide 75-77-4, Trimethylsilyl chloride, reactions 456-41-7, 3-Fluorobenzyl bromide 688-73-3, Tributyltin hydride 1195-42-2, N-Isopropylcyclohexylamine 4202-14-6, Dimethyl 2-oxopropylphosphonate 14924-53-9, Ethyl cyclobutanecarboxylate 31752-99-5 61305-36-0 149862-39-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(prostaglandin derivs. devoid of side effects for treatment of **glaucoma**)
IT 38754-71-1P 39990-99-3P 62407-82-3P 62407-83-4P 62407-84-5P 63295-65-8P 219827-74-4P 219827-77-7P 219827-83-5P 219827-87-9P 219827-90-4P 219827-93-7P 219827-95-9P 219827-98-2P 219828-01-0P 219828-04-3P 219828-07-6P 219828-09-8P 219828-13-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prostaglandin derivs. devoid of side effects for treatment of **glaucoma**)
RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Alcon Laboratories, Inc; WO 9408585 A1 1994 HCAPLUS
(2) Bays, D; Natural product reports 1990, V7(5), P409 MEDLINE
(3) Kluender, H; US 4132738 A 1979 HCAPLUS
(4) Watabe, A; The Journal of Biological Chemistry 1993, V268(27), P20175 HCAPLUS

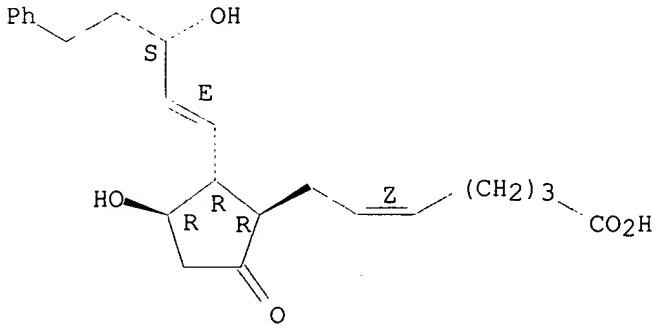
(5) Woodward, D; Journal of Lipid Mediators 1993, V6, P545 HCAPLUS
IT **4510-16-1P**, Pgf2.beta. **38315-43-4P 219827-59-5P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(prostaglandin derivs. devoid of side effects for treatment of **glaucoma**)
RN 4510-16-1 HCAPLUS
CN Prosta-5,13-dien-1-oic acid, 9,11,15-trihydroxy-, (5Z,9.beta.,11.alpha.,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



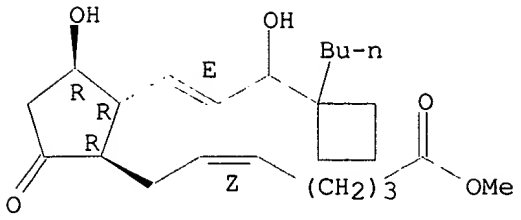
RN 38315-43-4 HCAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R)-3-hydroxy-2-[(1E,3S)-3-hydroxy-5-phenyl-1-pentenyl]-5-oxocyclopentyl]-, (5Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



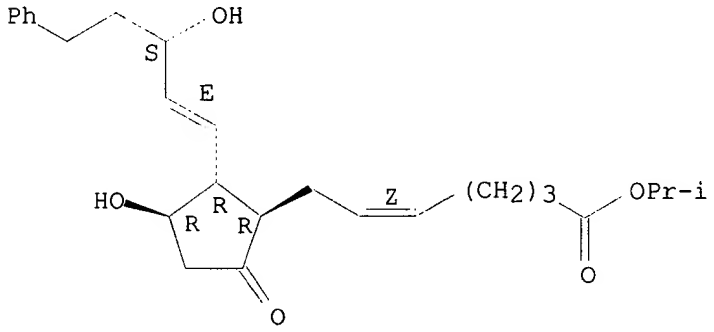
RN 219827-59-5 HCAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R)-2-[(1E)-3-(1-butylcyclobutyl)-3-hydroxy-1-propenyl]-3-hydroxy-5-oxocyclopentyl]-, methyl ester, (5Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



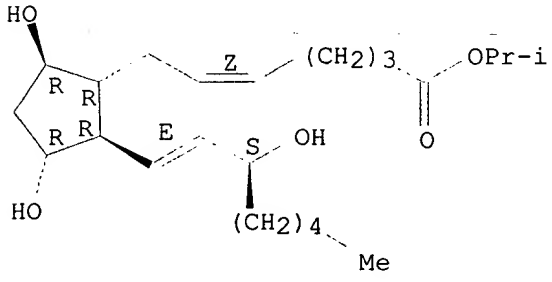
IT **130225-92-2P 157019-93-7P 219827-55-1P 219827-63-1P 219828-15-6P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prostaglandin derivs. devoid of side effects for treatment of **glaucoma**)
RN 130225-92-2 HCAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R)-3-hydroxy-2-[(1E,3S)-3-hydroxy-5-phenyl-1-pentenyl]-5-oxocyclopentyl]-, 1-methylethyl ester, (5Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



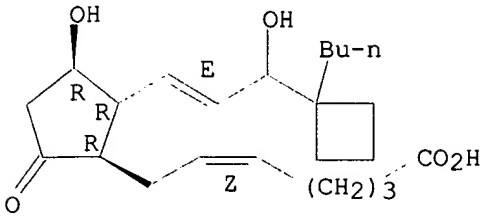
RN 157019-93-7 HCAPLUS
CN Prosta-5,13-dien-1-oic acid, 9,11,15-trihydroxy-, 1-methylethyl ester, (5Z,9.beta.,11.alpha.,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



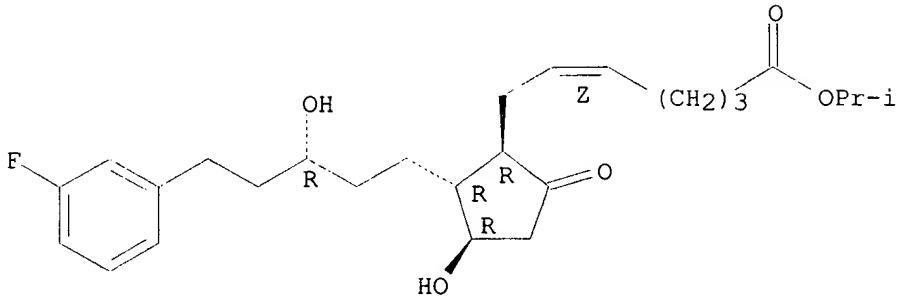
RN 219827-55-1 HCAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R)-2-[(1E)-3-(1-butylcyclobutyl)-3-hydroxy-1-propenyl]-3-hydroxy-5-oxocyclopentyl]-, (5Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



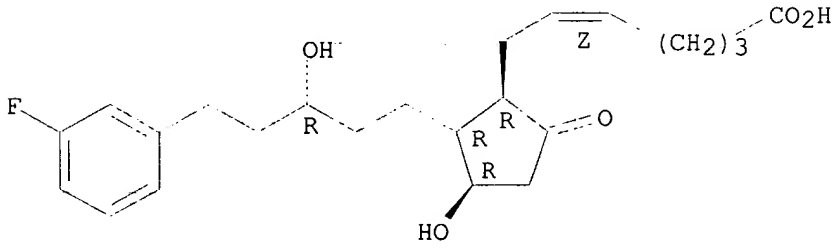
RN 219827-63-1 HCAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R)-2-[(3R)-5-(3-fluorophenyl)-3-hydroxypentyl]-3-hydroxy-5-oxocyclopentyl]-, 1-methylethyl ester, (5Z)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 219828-15-6 HCAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R)-2-[(3R)-5-(3-fluorophenyl)-3-hydroxypentyl]-3-hydroxy-5-oxocyclopentyl]-, (5Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

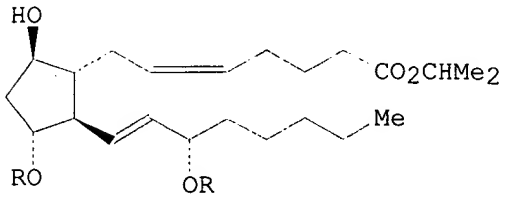


L140 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2002 ACS
AN 1994:533851 HCAPLUS
DN 121:133851
TI Preparation of prostaglandin F2.beta. isopropyl ester for the treatment of **glaucoma**
IN Myazaki, Tooru; Kawamura, Masanori; Shirasawa, Eiichi
PA Ono Pharmaceutical Co, Japan
SO Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DT Patent

LA Japanese
IC ICM C07C405-00
ICS A61K031-557
CC 26-3 (Biomolecules and Their Synthetic Analogs)
Section cross-reference(s): 1
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06100529	A2	19940412	JP 1992-278039	19920922 <--

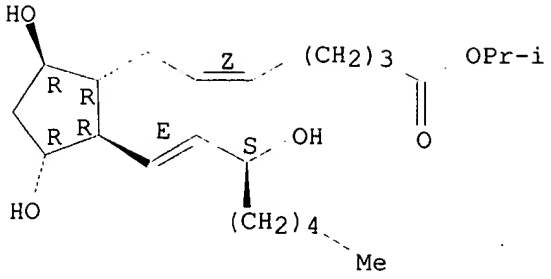
PI JP 06100529 A2 19940412 JP 1992-278039 19920922 <--
OS CASREACT 121:133851
GI



I

AB The title compd. (I) (R = H) (II) was prepd. by hydrolysis of I (R = tetrahydropyran-2-yl) (III). A soln. of III in 5% acetic acid-THF was stirred for 1.5 h at 65.degree. to give II. A 0.02% soln. of II decreased **intraocular** pressure in rabbits by 5 mmHg.
ST prostaglandin isopropyl ester prepn **glaucoma; glaucoma** treatment prostaglandin isopropyl ester
IT **Glaucoma (disease)**
(prostaglandin F2.beta. iso-Pr ester effect on)
IT 64-19-7, Acetic acid, uses
RL: USES (Uses)
(hydrolysis of tetrahydropyranyloxyprostaglandin deriv. in water and)
IT 157019-94-8P 157019-95-9P 157019-96-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction of, in prepn. of agent for treatment of **glaucoma**)
IT **157019-93-7P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, for treatment of **glaucoma**)
IT 67-63-0, 2-Propanol, reactions 37786-09-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, in prepn. of agent for treatment of **glaucoma**)
IT **157019-93-7P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, for treatment of **glaucoma**)
RN 157019-93-7 HCAPLUS
CN Prosta-5,13-dien-1-oic acid, 9,11,15-trihydroxy-, 1-methylethyl ester, (5Z,9.beta.,11.alpha.,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



L140 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2002 ACS
AN 1990:605515 HCAPLUS
DN 113:205515
TI Preparation and use of prostaglandin derivatives for the treatment of **glaucoma** or **ocular hypertension**
IN **Stjernschantz, Johan W.; Resul, Bahram**
PA Pharmacia AB, Swed.
SO PCT Int. Appl., 39 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61K031-557
ICS C07C177-00
CC 2-9 (Mammalian Hormones)
Section cross-reference(s): 1, 26
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	WO 9002553	A1	19900322	WO 1989-SE475	19890906	<--
	W: AU, DK, FI, JP, NO, US					
	AU 8941898	A1	19900402	AU 1989-41898	19890906	<--
	AU 625096	B2	19920702			
	EP 364417	A1	19900418	EP 1989-850294	19890906	<--
	EP 364417	B1	19940209			
	R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE					
	JP 03501025	T2	19910307	JP 1989-509228	19890906	<--
	JP 2721414	B2	19980304			
	EP 569046	A1	19931110	EP 1993-109514	19890906	<--
	EP 569046	B1	20021113			
	R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE					
	AT 101342	E	19940215	AT 1989-850294	19890906	<--
	ES 2062102	T3	19941216	ES 1989-850294	19890906	<--
	JP 10081624	A2	19980331	JP 1997-209419	19890906	<--
	EP 1225168	A2	20020724	EP 2002-9255	19890906	<--
	R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE					
	EP 1224934	A2	20020724	EP 2002-9256	19890906	<--
	R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE					
	EP 1224935	A2	20020724	EP 2002-9257	19890906	<--
	R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE					
	AT 227576	E	20021115	AT 1993-109514	19890906	<--
	CA 1339132	A1	19970729	CA 1989-611003	19890912	<--
	DK 9001121	A	19900504	DK 1990-1121	19900504	<--
	FI 92690	B	19940915	FI 1990-2258	19900504	<--
	FI 92690	C	19941227			
	US 5296504	A	19940322	US 1992-987520	19921208	<--
	US 5321128	A	19940614	US 1992-988389	19921208	<--
	US 5422368	A	19950606	US 1992-986943	19921208	<--
	US 5422369	A	19950606	US 1994-202409	19940225	<--
	US 5578618	A	19961126	US 1995-390394	19950216	<--

CC 2-9 (Mammalian Hormones)

AB In pithed rats, the authors studied the effects of prostaglandin E2 and of subtype-selective prostaglandin E **receptor** (EP **receptor**) ligands on the rise in blood **pressure** induced by elec. stimulation of the preganglionic sympathetic nerves. Prostaglandin E2, the **EP1**/EP3 **receptor** agonist sulprostone and the EP2/EP3 **receptor** agonist misoprostol inhibited the elec. induced increase in diastolic blood **pressure** (rank order of potencies sulprostone .gtoreq. misoprostol .gtoreq. prostaglandin E2); the rise in blood **pressure** induced by exogenously added noradrenaline was not affected by these compds. The inhibitory effect of sulprostone on the elec. induced vasopressor response was not significantly changed by indomethacin. Iloprost (an agonist at **EP1** and prostacyclin **receptors** (IP **receptors**)) failed to affect the elec. evoked increase in blood **pressure**. The present study suggests that prostaglandin E2 inhibits the release of catecholamines in pithed rats via **prostanoid receptors** of the EP3 subtype, probably located presynaptically on the postganglionic sympathetic nerve fibers.

ST prostaglandin EP3 receptor neurogenic vasopressor response; blood **pressure** sympathetic nerve PGE3 receptor

IT Catecholamines
RL: BIOL (Biological study)
(release of, in neurogenic vasopressor response, PGE3 inhibition of, EP3 receptor mediation of)

IT Blood **pressure**
(sympathetic nerve elec. stimulation increase of, PGE3 inhibition of, EP3 receptor mediation of)

IT **Prostaglandin receptors**
RL: BIOL (Biological study)
(EP3, neurogenic vasopressor response inhibition by PGE3 mediation by)

IT **Receptors**
RL: BIOL (Biological study)
(**prostaglandin** EP3, neurogenic vasopressor response inhibition by PGE3 mediation by)

IT Nerve
(sympathetic, blood **pressure** increase by elec. stimulation of, PGE3 inhibition of, EP3 receptor mediation of)

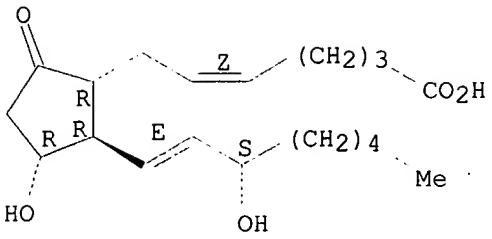
IT **363-24-6**, Prostaglandin E2 59122-46-2, Misoprostol 60325-46-4, Sulprostone
RL: BIOL (Biological study)
(neurogenic vasopressor response inhibition by, EP3 receptor mediation of)

IT **363-24-6**, Prostaglandin E2
RL: BIOL (Biological study)
(neurogenic vasopressor response inhibition by, EP3 receptor mediation of)

RN 363-24-6 HCAPLUS

CN Prosta-5,13-dien-1-oic acid, 11,15-dihydroxy-9-oxo-, (5Z,11.alpha.,13E,15S)- (9CI) (CA INDEX NAME)

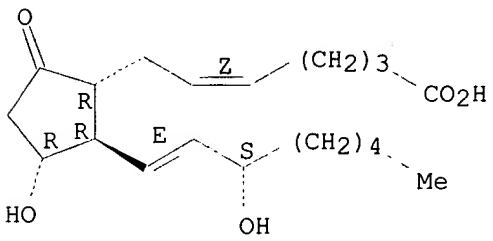
Absolute stereochemistry.
Double bond geometry as shown.



L169 ANSWER 9 OF 13 HCAPLUS COPYRIGHT 2002 ACS
AN 1994:290674 HCAPLUS
DN 120:290674
TI Reduced responses of retinal vessels of the newborn pig to prostaglandins but not to thromboxane
AU Abran, Danile; Varma, Daya R.; Li, Ding-You; Chemtob, Sylvain
CS Dep. Ped., Centre Res. Hopital Sainte-Justine, Montreal, QC, HET 1C5, Can.
SO Canadian Journal of Physiology and Pharmacology (**1994**), 72(2), 168-73
CODEN: CJPPA3; ISSN: 0008-4212
DT Journal
LA English
CC 2-9 (Mammalian Hormones)
AB The upper blood **pressure** limit of retinal blood flow autoregulation is lower in the newborn than in the adult; this suggests an insufficient vasoconstrictor response in the newborn when perfusion **pressure** is increased. Because prostaglandins (PGs) have an important role in autoregulation of retinal blood flow, the authors compared the effects of PGE2, PGF2.alpha., carbacyclin (PGI2 analog), and U46619 (thromboxane analog), as well as that of agonists for the three different PGE2 receptor subtypes, 17-Ph trinor PGE2 (**EP1**), butaprost (EP2), and M&B 28, 767 (EP3), on the retinal vasculature of newborn and adult pigs, using isolated eyecup prepns. PGF2.alpha. and PGE2 caused a markedly greater constriction of retinal arteries and veins of the adult than of the newborn animals. Further anal. of the response to PGE2, using receptor subtype agonists revealed that the **EP1** receptor agonist, 17-Ph trinor PGE2, and the EP3 receptor agonist, M&B 28, 767, caused a significant constriction of adult arteries and veins but produced minimal effects on newborn vessels; the EP2 receptor agonist, butaprost, caused a small and comparable dilation of newborn and adult arteries and veins. The PGI2 analog, carbacyclin caused a greater dilation of the adult than of the newborn arteries, but produced comparable dilation of veins from both newborn and adult animals. In contrast to the effects of PGF2.alpha. and PGE2, the thromboxane analog, U46619, as well as the .alpha.1-adrenoceptor agonist, phenylephrine, significantly constricted newborn arteries and veins, and this effect was comparable with that obsd. on retinal vessels of the adult. The authors' findings indicate that the retinal vasculature of the newborn responds minimally to prostaglandins, primarily PGF2.alpha. and PGE2, compared with the adult, but constricts effectively to thromboxane. Since prostaglandins play an important role in the autoregulation of retinal blood flow, the authors' observations provide an explanation for the inability of the newborn to limit blood flow when perfusion **pressure** is raised.
ST retina vasoconstriction newborn prostaglandin thromboxane
IT Newborn
(eye retina vasoconstriction response to prostaglandins and thromboxanes in)
IT Blood **pressure**
(eye retina vasoconstriction response to prostaglandins and

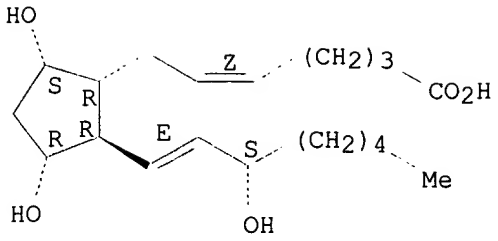
thromboxanes in newborn in relation to)
IT Prostaglandins
Thromboxanes
RL: BIOL (Biological study)
(eye retina vasoconstriction response to, in newborn)
IT Circulation
(of eye retina, prostaglandins and thromboxanes effect on, in newborn)
IT Vein
(retinal, constriction of, prostaglandins and thromboxanes stimulatory sensitivity of, in newborn)
IT Prostaglandins
RL: BIOL (Biological study)
(**EP1** receptors, eye retina vasoconstriction response to PGE2 mediation by, in newborn and adult)
IT Prostaglandins
RL: BIOL (Biological study)
(EP3 receptors, eye retina vasoconstriction response to PGE2 mediation by, in newborn and adult)
IT **Receptors**
RL: BIOL (Biological study)
(**prostaglandin EP1**, eye retina vasoconstriction response to PGE2 mediation by, in newborn and adult)
IT **Receptors**
RL: BIOL (Biological study)
(**prostaglandin** EP3, eye retina vasoconstriction response to PGE2 mediation by, in newborn and adult)
IT Eye
(retina, vasoconstriction response to prostaglandins and thromboxanes in)
IT Artery
(retinal, constriction of, prostaglandins and thromboxanes stimulatory sensitivity of, in newborn)
IT 59-42-7, Phenylephrine **363-24-6**, PGE2 **551-11-1**, PGF2.alpha. 56985-40-1, U-46619
RL: BIOL (Biological study)
(eye retina vasoconstriction response to, in newborn)
IT **363-24-6**, PGE2 **551-11-1**, PGF2.alpha.
RL: BIOL (Biological study)
(eye retina vasoconstriction response to, in newborn)
RN 363-24-6 HCAPLUS
CN Prosta-5,13-dien-1-oic acid, 11,15-dihydroxy-9-oxo-, (5Z,11.alpha.,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 551-11-1 HCAPLUS
CN Prosta-5,13-dien-1-oic acid, 9,11,15-trihydroxy-, (5Z,9.alpha.,11.alpha.,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



L169 ANSWER 10 OF 13 HCAPLUS COPYRIGHT 2002 ACS
AN 1994:290654 HCAPLUS
DN 120:290654
TI Studies on the ocular **hypotensive** effects of prostaglandin F2.alpha. prodrugs and receptor selective prostaglandin analogs
AU Woodward, David F.; Chan, M. F.; Burke, J. A.; Cheng-Bennett, A.; Chen, G.; Fairbairn, C. E.; Gac, T.; Garst, M. E.; Gluchowski, C.; et al.
CS Dep. Biochem., Allergan, Inc., Irvine, CA, USA
SO Journal of Ocular Pharmacology (**1994**), 10(1), 177-93
CODEN: JOPHER; ISSN: 8756-3320
DT Journal
LA English
CC 2-9 (Mammalian Hormones)
AB The use of natural prostaglandins (PG), such as PGD2, PGE2, PGF2.alpha., and PGI2, for treating **glaucoma** is limited by their ocular side effects. One approach to achieve the required sepn. of ocular **hypotensive** activity from side effects is to employ ester prodrugs. From a novel series of 11- and 15-mono and 11,15-diacyl esters of PGF2.alpha. the authors identified prodrugs where PGF2.alpha. formation rates in the iris-ciliary body exceeded those in the conjunctiva, sclera, and corneal endothelium. Compared to PGF2.alpha.-1-iso-Pr ester the ocular tissue hydrolysis rates of the 11-monopivaloyl, the 11,15-dipivaloyl ester and the 1,11-lactone were .ltoreq.1000-fold less. Despite this large disparity in hydrolysis rates, the pivaloyl esters and the 1,11-lactone were potent ocular **hypotensives** in the authors' animal models. In studying prostaglandin analogs, the authors found that a diverse variety of **prostanoid receptor** selective agonists lowered intraocular **pressure** in dogs and/or monkeys. These included DP-, **EP1**-, EP2-, EP3-, and FP-**receptor** -selective compds. The **receptor** selectivity of these agonists was reexamd. by radioligand binding studies. Using radiolabeled PGE2, 17-Ph PGF2.alpha., and sulprostone the authors were able to confirm the selectivity of the agonists currently used for **receptor** characterization directly by radioligand binding competition studies. It appears that multiple **prostanoid receptor** subtypes may be involved in regulating intraocular **pressure**.
ST prostanoid receptor subtype intraocular **pressure**; PGF 2alpha prodrug ocular **hypotensive**
IT Eye, metabolism
(conjunctiva, PGF2.alpha. formation from ester prodrugs in)
IT Eye, metabolism
(cornea, epithelium, PGF2.alpha. formation from ester prodrugs in)
IT Eye, metabolism
(cornea, stroma, PGF2.alpha. formation from ester prodrugs in)
IT Eye
(intraocular fluid, PGF2.alpha. prodrugs **hypotensive** effect on)
IT Eye, metabolism
(iris-ciliary body, PGF2.alpha. formation from ester prodrugs in)
IT Uterus, composition

(myometrium, prostanoid receptors of, prostanoid ligands interaction with)

IT **Receptors**
RL: BIOL (Biological study)
(**prostaglandin**, subtypes, of ocular tissues, intraocular **pressure** modulation by)

IT Prostaglandins
RL: BIOL (Biological study)
(receptors, subtypes, of ocular tissues, intraocular **pressure** modulation by)

IT **363-24-6**, PGE2 **40666-16-8**, Fluprostenol 41598-07-6, PGD2 **60972-43-2**, MB 28767 148436-63-9, AH 13205
RL: BIOL (Biological study)
(myometrium prostanoid receptors interaction with)

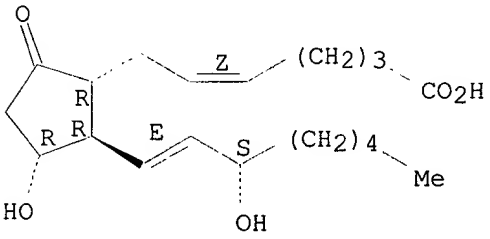
IT **37786-00-8**, 11-Deoxy PGE1 **53764-90-2** 55314-48-2, PGF2.alpha. 1,9-lactone 55314-49-3, PGF2.alpha. 1,15-lactone **55582-75-7**, 17-Phenyl PGF2.alpha. 56985-40-1, U 46619 60325-46-4, Sulprostone 62410-84-8, PGF2.alpha. 1,11-lactone **134217-11-1 135273-39-1 135273-43-7** 137143-41-0 154887-01-1 154887-02-2
RL: PRP (Properties)
(ocular **hypotensive** effect of)

IT **551-11-1**, PGF2.alpha.
RL: BIOL (Biological study)
(prodrug hydrolysis to, in eye, ocular **hypotensive** effect of)

IT **363-24-6**, PGE2 **40666-16-8**, Fluprostenol **60972-43-2**, MB 28767
RL: BIOL (Biological study)
(myometrium prostanoid receptors interaction with)

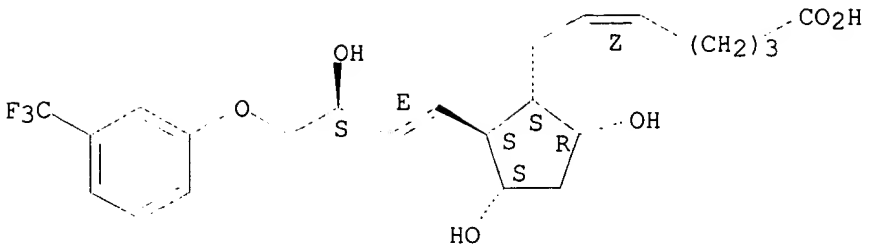
RN 363-24-6 HCAPLUS
CN Prosta-5,13-dien-1-oic acid, 11,15-dihydroxy-9-oxo-, (5Z,11.alpha.,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



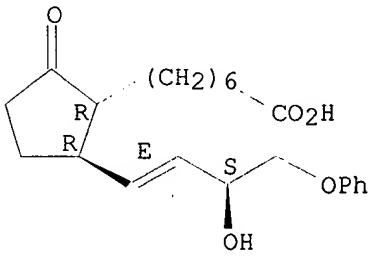
RN 40666-16-8 HCAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(1E,3R)-3-hydroxy-4-[3-(trifluoromethyl)phenoxy]-1-butenyl]cyclopentyl]-, (5Z)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.



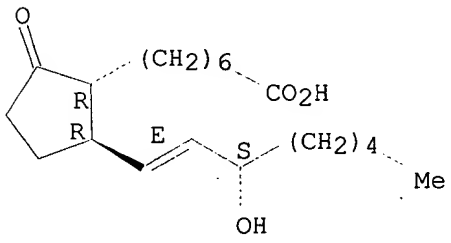
RN 60972-43-2 HCAPLUS
CN Cyclopentaneheptanoic acid, 2-[(1E,3R)-3-hydroxy-4-phenoxy-1-butenyl]-5-oxo-, (1S,2S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.



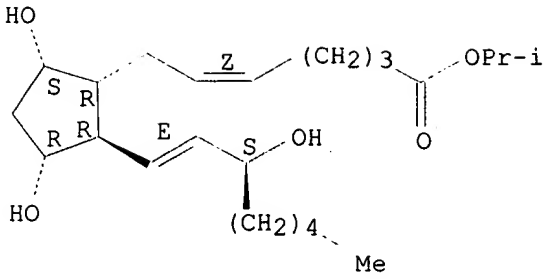
IT **37786-00-8**, 11-Deoxy PGE1 **53764-90-2 55582-75-7**
, 17-Phenyl PGF2.alpha. **134217-11-1 135273-39-1**
135273-43-7
RL: PRP (Properties)
(ocular **hypotensive** effect of)
RN 37786-00-8 HCAPLUS
CN Prost-13-en-1-oic acid, 15-hydroxy-9-oxo-, (13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



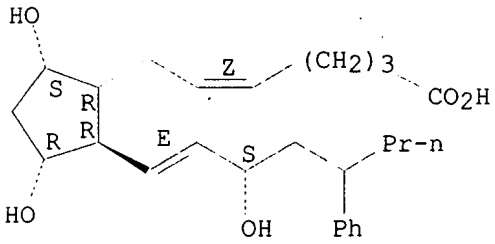
RN 53764-90-2 HCAPLUS
CN Prosta-5,13-dien-1-oic acid, 9,11,15-trihydroxy-, 1-methylethyl ester, (5Z,9.alpha.,11.alpha.,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



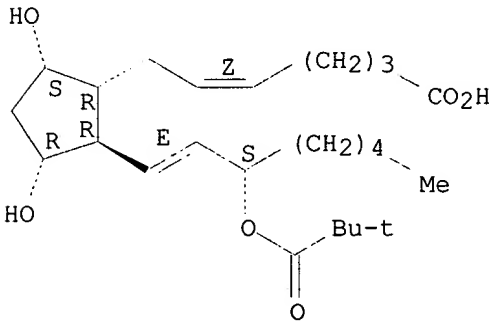
RN 55582-75-7 HCAPLUS
CN Prosta-5,13-dien-1-oic acid, 9,11,15-trihydroxy-17-phenyl-, (5Z,9.alpha.,11.alpha.,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



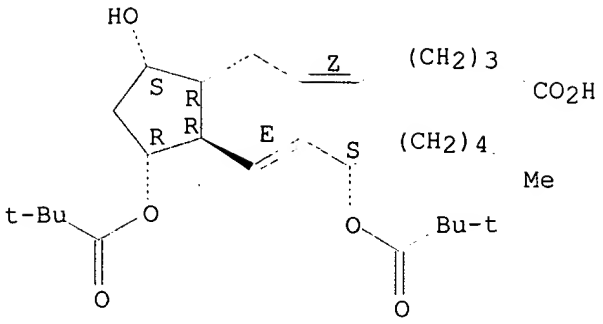
RN 134217-11-1 HCAPLUS
CN Prosta-5,13-dien-1-oic acid, 15-(2,2-dimethyl-1-oxopropoxy)-9,11-dihydroxy-, (5Z,9.alpha.,11.alpha.,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



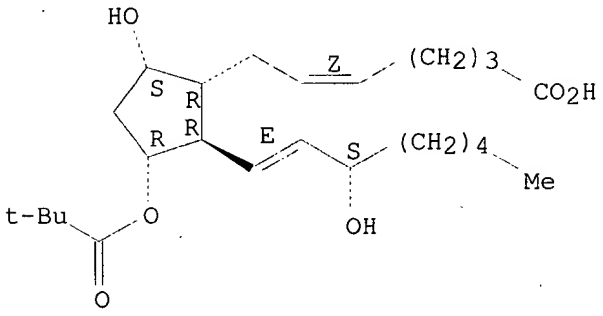
RN 135273-39-1 HCAPLUS
CN Prosta-5,13-dien-1-oic acid, 11,15-bis(2,2-dimethyl-1-oxopropoxy)-9-hydroxy-, (5Z,9.alpha.,11.alpha.,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



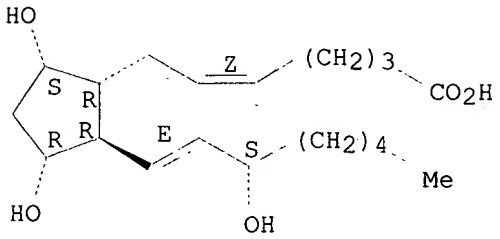
RN 135273-43-7 HCAPLUS
CN Prosta-5,13-dien-1-oic acid, 11-(2,2-dimethyl-1-oxopropoxy)-9,15-dihydroxy-, (5Z,9.alpha.,11.alpha.,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



IT **551-11-1**, PGF2.alpha.
RL: BIOL (Biological study)
(prodrug hydrolysis to, in eye, ocular **hypotensive** effect of)
RN 551-11-1 HCAPLUS
CN Prosta-5,13-dien-1-oic acid, 9,11,15-trihydroxy-, (5Z,9.alpha.,11.alpha.,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



L169 ANSWER 11 OF 13 HCAPLUS COPYRIGHT 2002 ACS
AN 1993:596454 HCAPLUS
DN 119:196454
TI Intraocular **pressure** effects of selective prostanoid receptor agonists involve different receptor subtypes according to radioligand binding studies
AU Woodward, David F.; Lawrence, Ruth A.; Fairbairn, Casey E.; Shan, Tanwir;

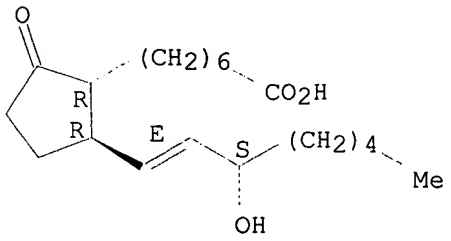
Williams, Linda S.
CS Dep. Biol. Sci., Allergan, Inc., Irvine, CA, 92713-9534, USA
SO Journal of Lipid Mediators (**1993**), 6(1-3), 545-53
CODEN: JLMEEG; ISSN: 0921-8319
DT Journal
LA English
CC 2-9 (Mammalian Hormones)
AB The **receptors** involved in the ocular **hypotensive** activity PGE2 and PGF2.alpha. in dogs and monkeys were investigated by examg. the effects of putative **receptor** selective agonists on intraocular **pressure**. A diverse variety of **receptor** selective agonists lowered intraocular **pressure** in these species. Thus, FP-**receptor** agonists (17-Ph PGF2.alpha., fluprostenol), agonists with potent activity at the EP3 **receptor** (MB 28767, sulprostone) and a **prostanoid** with activity at the EP2 **receptor** (11-deoxy PGE1) were all potent ocular **hypotensives** when administered as a single dose to dogs and monkeys or b.i.d. for 5 days in monkeys. These findings were regarded as surprising and prompted re-exam. of some aspects of the current classification for **prostanoid receptors**. At present certain **receptor** subtypes, notably EP2, EP3, and FP **receptors**, are defined only according to potency rank order for agonists. In these studies, the authors employed radioligand binding studies to det. the degree of competition between **prostanoid** agonists claimed to be selective on the basis of functional assays. Competition studies with the myometrial plasma membrane prepd. from the rat uterus were consistent with the presence of an EP3 **receptor**. Thus, EP3-**receptor** agonists (MB 28767 and sulprostone) potently inhibited PGE2 and sulprostone binding, whereas FP agonists (17-Ph PGF2.alpha., fluprostenol), a DP agonist (BW 245C), an **EP1** antagonist (AH 6809), and EP2 agonist (AH 13205) and TP-**receptor** ligands (BM 13505, I-BOP) afforded little or no inhibition. Radioligand binding studies in plasma membrane prepns. from the rat colon with 17-Ph [3H]PGF2.alpha. were consistent with the presence of an FP-**receptor**. 17-Ph [3H]PGF2.alpha. was potently displaced by PGF2.alpha., whereas only very weak competition at the **receptor** site was afforded by EP3 agonists (MB 28767, sulprostone). The results are consistent with the existence of EP3 and FP **receptors** as distinct entities. The findings also imply that the decrease in intraocular **pressure** produced by FP and EP3 agonists results from stimulation of two independent subpopulations of **prostanoid receptors**.
ST eye intraocular **pressure** prostaglandin receptor agonist
IT Eye
(intraocular **pressure** of, prostaglandin receptor subtypes in regulation of)
IT Prostaglandins
RL: BIOL (Biological study)
(EP3 receptors, in eye intraocular **pressure** regulation)
IT Prostaglandins
RL: BIOL (Biological study)
(FP receptors, in eye intraocular **pressure** regulation)
IT **Receptors**
RL: BIOL (Biological study)
(**prostaglandin** EP3, in eye intraocular **pressure** regulation)
IT **Receptors**
RL: BIOL (Biological study)
(**prostaglandin** FP, in eye intraocular **pressure** regulation)
IT **37786-00-8**, 11-Deoxy PGE1 **40666-16-8**, Fluprostenol
55582-75-7, 17-Phenyl PGF2.alpha. 60325-46-4, Sulprostone
60972-43-2, MB 28767

RL: BIOL (Biological study)
(eye intraocular **pressure** decrease by)

IT **37786-00-8**, 11-Deoxy PGE1 **40666-16-8**, Fluprostenol
55582-75-7, 17-Phenyl PGF2.alpha. **60972-43-2**, MB 28767
RL: BIOL (Biological study)
(eye intraocular **pressure** decrease by)

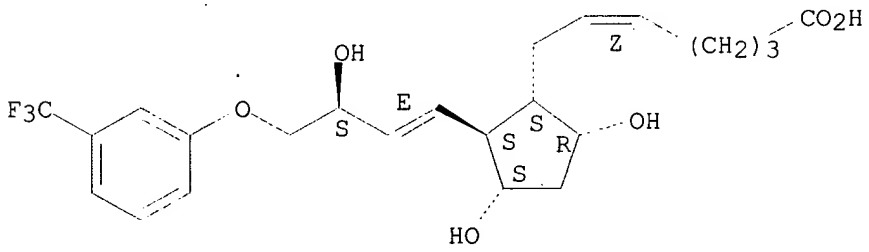
RN 37786-00-8 HCAPLUS
CN Prost-13-en-1-oic acid, 15-hydroxy-9-oxo-, (13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



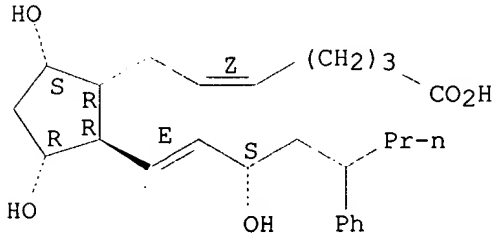
RN 40666-16-8 HCAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(1E,3R)-3-hydroxy-4-[3-(trifluoromethyl)phenoxy]-1-butenyl]cyclopentyl]-, (5Z)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.
Double bond geometry as shown.



RN 55582-75-7 HCAPLUS
CN Prosta-5,13-dien-1-oic acid, 9,11,15-trihydroxy-17-phenyl-, (5Z,9.alpha.,11.alpha.,13E,15S)- (9CI) (CA INDEX NAME)

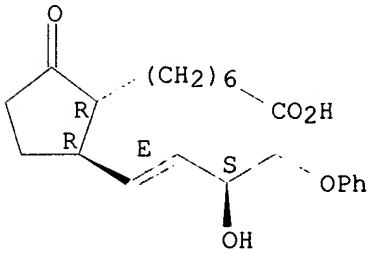
Absolute stereochemistry.
Double bond geometry as shown.



RN 60972-43-2 HCAPLUS
CN Cyclopentaneheptanoic acid, 2-[(1E,3R)-3-hydroxy-4-phenoxy-1-butenyl]-5-

oxo-, (1S,2S)-rel- (9CI) (CA INDEX NAME)

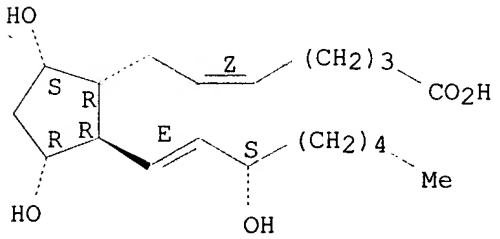
Relative stereochemistry.
Double bond geometry as shown.



L169 ANSWER 12 OF 13 HCAPLUS COPYRIGHT 2002 ACS
AN 1993:517000 HCAPLUS
DN 119:117000
TI Phenyl-substituted prostaglandins: potent and selective **antiglaucoma** agents. [Erratum to document cited in CA118(11):101683k]
AU Resul, Bahram; Stjernschantz, Johan; No, Kiyo; Liljebris, Charlotta; Selen, Goeran; Astin, Maria; Karlsson, Maritha; Bito, Laszlo Z.
CS Kabi Pharm. AB Ophthalmics, Uppsala, Swed.
SO Journal of Medicinal Chemistry (**1993**), 36(15), 2242
CODEN: JMCMAR; ISSN: 0022-2623
DT Journal
LA English
CC 26-3 (Biomolecules and Their Synthetic Analogs)
Section cross-reference(s): 1
AB 3 Errors in the text have been cor. The errors were not reflected in the abstr. or the index entries.
ST erratum phenyltrinorprostaglandin ester prepn **antiglaucoma**; phenyltrinorprostaglandin ester prepn **antiglaucoma** erratum; **glaucoma** inhibitor phenyltrinorprostaglandin ester erratum; prostaglandin receptor affinity phenyltrinorprostaglandin ester erratum
IT **Glaucoma (disease)**
(inhibitors, phenyltrinorprostaglandin F esters (Erratum))
IT Prostaglandins
RL: RCT (Reactant); RACT (Reactant or reagent)
(FP receptors, phenyltrinorprostaglandin F esters affinity for (Erratum))
IT **Receptors**
RL: RCT (Reactant); RACT (Reactant or reagent)
(**prostaglandin** FP, phenyltrinorprostaglandin F esters affinity for (Erratum))
IT 4202-14-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(benzylation of (Erratum))
IT **551-11-1 37658-84-7 38344-08-0 53764-90-2 145667-77-2**
RL: RCT (Reactant); RACT (Reactant or reagent)
(intraocular pressure-lowering activity of (Erratum))
IT 31752-99-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(oxidn. of (Erratum))
IT 145667-74-9P 145773-20-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and deacylation of (Erratum))
IT **41639-71-8P 130209-82-4P 130273-87-9P**

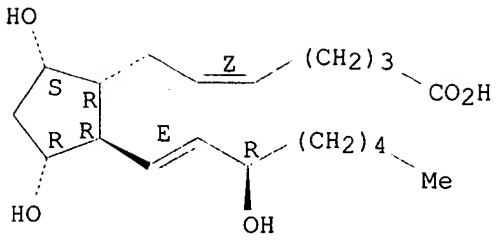
145773-22-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and intraocular pressure-lowering activity of (Erratum))
IT 145667-76-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction of, with carboxybutylphosphonium bromide (Erratum))
IT 41162-19-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction of, with formyloxabicyclooctanone (Erratum))
IT 38754-71-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction of, with phenylbutylphosphonate (Erratum))
IT 41639-23-0P 41639-72-9P 41639-73-0P **130209-77-7P**
145667-75-0P 145773-21-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and redn. of (Erratum))
IT **41639-83-2P 41639-84-3P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn., esterification, and intraocular pressure-lowering activity of (Erratum))
IT **130209-76-6P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn., oxidn., and intraocular pressure-lowering activity of (Erratum))
IT 17814-85-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with oxobicyclooctanone deriv. (Erratum))
IT **551-11-1 37658-84-7 38344-08-0**
53764-90-2 145667-77-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(intraocular pressure-lowering activity of (Erratum))
RN 551-11-1 HCAPLUS
CN Prosta-5,13-dien-1-oic acid, 9,11,15-trihydroxy-, (5Z,9.alpha.,11.alpha.,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



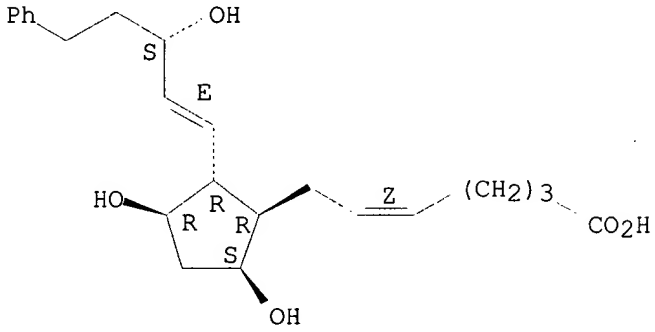
RN 37658-84-7 HCAPLUS
CN Prosta-5,13-dien-1-oic acid, 9,11,15-trihydroxy-, (5Z,9.alpha.,11.alpha.,13E,15R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



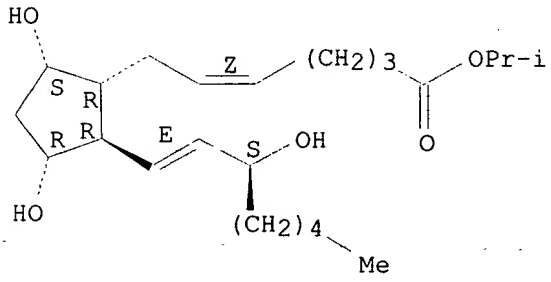
RN 38344-08-0 HCAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(1E,3S)-3-hydroxy-5-phenyl-1-pentenyl]cyclopentyl]-, (5Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



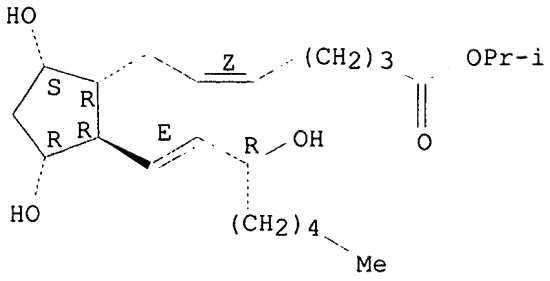
RN 53764-90-2 HCAPLUS
CN Prosta-5,13-dien-1-oic acid, 9,11,15-trihydroxy-, 1-methylethyl ester, (5Z,9.alpha.,11.alpha.,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



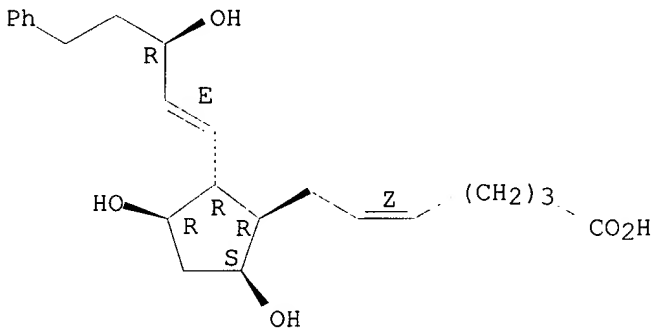
RN 145667-77-2 HCAPLUS
CN Prosta-5,13-dien-1-oic acid, 9,11,15-trihydroxy-, 1-methylethyl ester, (5Z,9.alpha.,11.alpha.,13E,15R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



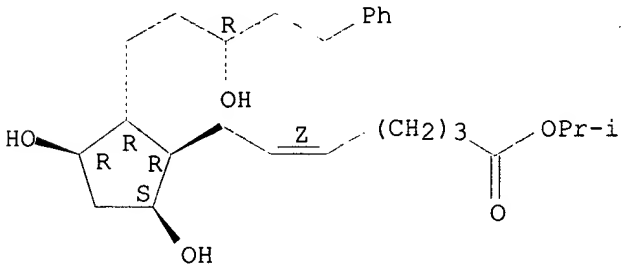
IT **41639-71-8P 130209-82-4P 130273-87-9P 145773-22-4P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and intraocular pressure-lowering activity of (Erratum))
RN 41639-71-8 HCAPLUS
CN 5-Heptenoic acid, 7-[3,5-dihydroxy-2-(3-hydroxy-5-phenyl-1-pentenyl)cyclopentyl]-, [1R-[1.alpha.(Z),2.beta.(1E,3R*),3.alpha.,5.alpha.]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



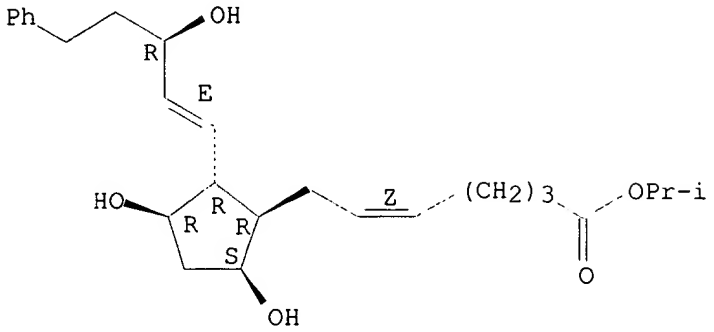
RN 130209-82-4 HCAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(3R)-3-hydroxy-5-phenylpentyl]cyclopentyl]-, 1-methylethyl ester, (5Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



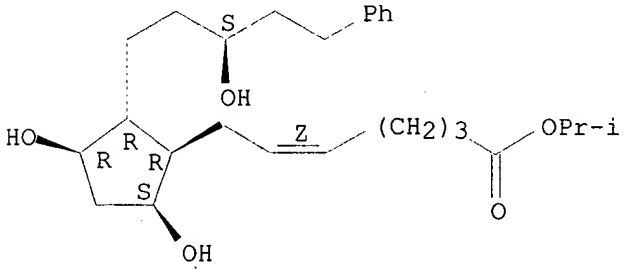
RN 130273-87-9 HCAPLUS
CN 5-Heptenoic acid, 7-[3,5-dihydroxy-2-(3-hydroxy-5-phenyl-1-pentenyl)cyclopentyl]-, 1-methylethyl ester, [1R-[1.alpha.(Z),2.beta.(1E,3R*),3.alpha.,5.alpha.]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



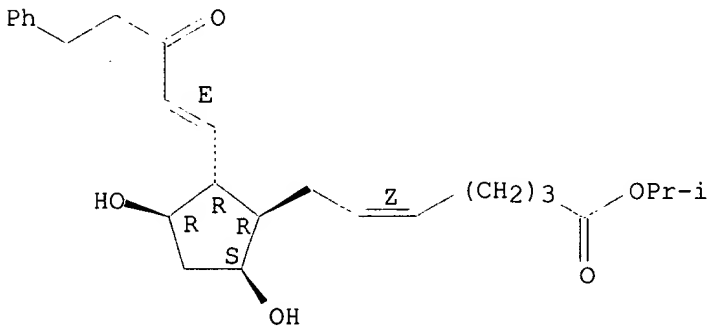
RN 145773-22-4 HCAPLUS
CN 5-Heptenoic acid, 7-[3,5-dihydroxy-2-(3-hydroxy-5-phenylpentyl)cyclopentyl]-, 1-methylethyl ester, [1R-[1.alpha.(Z),2.beta.(S*),3.alpha.,5.alpha.]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



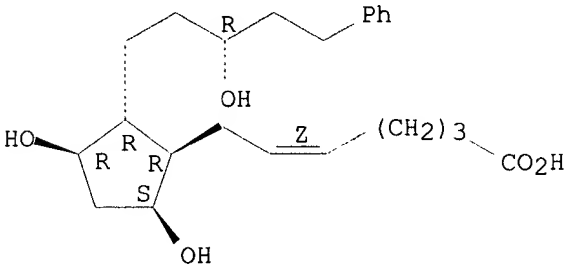
IT **130209-77-7P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and redn. of (Erratum))
RN 130209-77-7 HCAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(1E)-3-oxo-5-phenyl-1-pentenyl]cyclopentyl]-, 1-methylethyl ester, (5Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



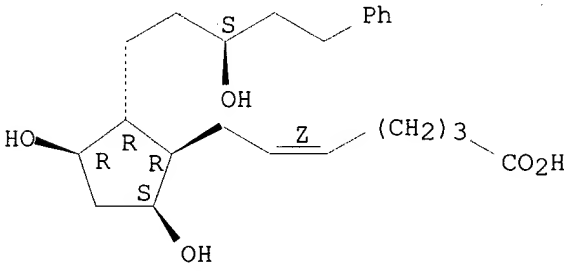
IT **41639-83-2P 41639-84-3P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn., esterification, and intraocular pressure-lowering activity of (Erratum))
RN 41639-83-2 HCAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(3R)-3-hydroxy-5-phenylpentyl]cyclopentyl]-, (5Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



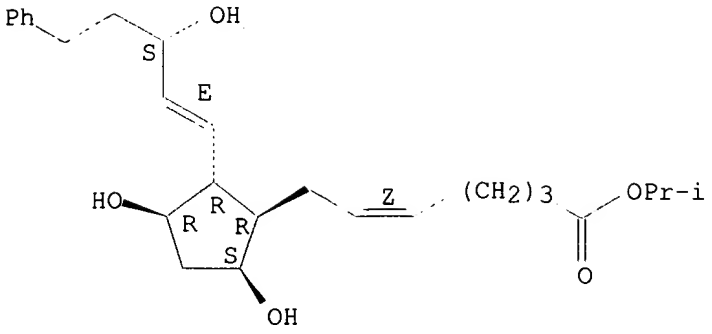
RN 41639-84-3 HCAPLUS
CN 5-Heptenoic acid, 7-[3,5-dihydroxy-2-(3-hydroxy-5-phenylpentyl)cyclopentyl]-, [1R-[1.alpha.(Z),2.beta.(S*),3.alpha.,5.alpha.]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

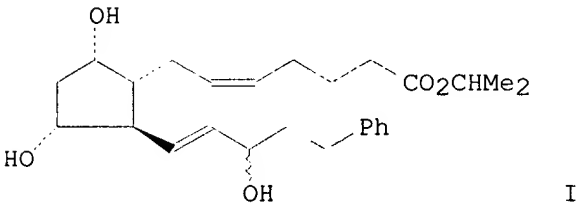


IT **130209-76-6P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn., oxidn., and intraocular pressure-lowering activity of (Erratum))
RN 130209-76-6 HCAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(1E,3S)-3-hydroxy-5-phenyl-1-pentenyl]cyclopentyl]-, 1-methylethyl ester, (5Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



L169 ANSWER 13 OF 13 HCAPLUS COPYRIGHT 2002 ACS
AN 1993:101683 HCAPLUS
DN 118:101683
TI Phenyl-substituted prostaglandins: potent and selective **antiglaucoma** agents
AU Resul, Bahram; Stjernschantz, Johan; No, Kiyo; Liljebris, Charlotta; Selen, Goeran; Astin, Maria; Karlsson, Maritha; Bito, Laszlo Z.
CS Kabi Pharm. AB Ophthalmics, Uppsala, Swed.
SO Journal of Medicinal Chemistry (**1993**), 36(2), 243-8
CODEN: JMCMAR; ISSN: 0022-2623
DT Journal
LA English
CC 26-3 (Biomolecules and Their Synthetic Analogs)
Section cross-reference(s): 1
GI

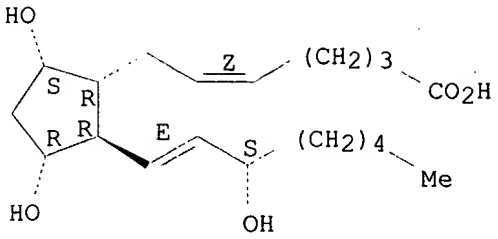


I

AB Title compds. I and their 13,14-dihydro derivs. (II) were prepd. and evaluated for their ocular hypotensive effect and side effects in different animal models. In addn., the activity of I and II on FP receptors was studied in vitro. The results were compared with those of PGF2.alpha. and its iso-Pr ester. I and II exhibited good intraocular pressure reducing effect, were more selective, and exhibited a much higher therapeutic index in the eye than PGF2.alpha. or its iso-Pr ester. (15R)-I and II exhibited high activity on FP receptors.
ST phenyltrinorprostaglandin ester prepn **antiglaucoma**; **glaucoma** inhibitor phenyltrinorprostaglandin ester; prostaglandin receptor affinity phenyltrinorprostaglandin ester
IT **Glaucoma (disease)**
(inhibitors, phenyltrinorprostaglandin F esters)
IT Prostaglandins
RL: RCT (Reactant); RACT (Reactant or reagent)
(FP receptors, phenyltrinorprostaglandin F esters affinity for)
IT **Receptors**
RL: RCT (Reactant); RACT (Reactant or reagent)
(**prostaglandin** FP, phenyltrinorprostaglandin F esters affinity for)

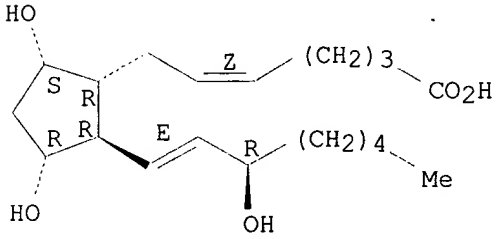
IT 4202-14-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(benzylation of)
IT **551-11-1 37658-84-7 38344-08-0**
53764-90-2 145667-77-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(intraocular pressure-lowering activity of)
IT 31752-99-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(oxidn. of)
IT 145667-74-9P 145773-20-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and deacylation of)
IT **41639-71-8P 130209-82-4P 130273-87-9P**
145773-22-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and intraocular pressure-lowering activity of)
IT 145667-76-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction of, with carboxybutylphosphonium bromide)
IT 41162-19-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction of, with formyloxabicyclooctanone)
IT 38754-71-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction of, with phenylbutylphosphonate)
IT 41639-23-0P 41639-72-9P 41639-73-0P **130209-77-7P**
145667-75-0P 145773-21-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and redn. of)
IT **41639-83-2P 41639-84-3P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn., esterification, and intraocular pressure-lowering activity of)
IT **130209-76-6P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn., oxidn., and intraocular pressure-lowering activity of)
IT 17814-85-6, 4-Carboxybutyltriphenylphosphonium bromide
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with oxobicyclooctanone deriv.)
IT **551-11-1 37658-84-7 38344-08-0**
53764-90-2 145667-77-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(intraocular pressure-lowering activity of)
RN 551-11-1 HCAPLUS
CN Prosta-5,13-dien-1-oic acid, 9,11,15-trihydroxy-, (5Z,9.alpha.,11.alpha.,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



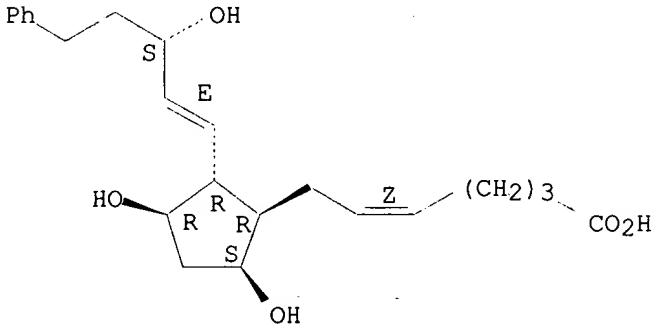
RN 37658-84-7 HCAPLUS
CN Prosta-5,13-dien-1-oic acid, 9,11,15-trihydroxy-, (5Z,9.alpha.,11.alpha.,13E,15R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 38344-08-0 HCAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(1E,3S)-3-hydroxy-5-phenyl-1-pentenyl]cyclopentyl]-, (5Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 53764-90-2 HCAPLUS
CN Prosta-5,13-dien-1-oic acid, 9,11,15-trihydroxy-, 1-methylethyl ester, (5Z,9.alpha.,11.alpha.,13E,15S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

	US 5849791	A	19981215	US 1995-461334	19950605	<--
	US 5627208	A	19970506	US 1995-470607	19950606	<--
	JP 08109132	A2	19960430	JP 1995-241200	19950920	<--
	JP 2955213	B2	19991004			
	US 6030999	A	20000229	US 1999-307814	19990510	<--
	US 6187813	B1	20010213	US 1999-307813	19990510	<--
	US 6429226	B1	20020806	US 2000-562447	20000501	<--
	US 2001014693	A1	20010816	US 2001-781896	20010212	<--
	US 6417230	B2	20020709			
	US 2002173525	A1	20021121	US 2002-106228	20020327	<--
PRAI	SE 1988-3110	A	19880906	<--		
	SE 1988-3855	A	19881028	<--		
	EP 1989-850294	A	19890906	<--		
	EP 1993-109514	A3	19890906	<--		
	JP 1995-241200	A3	19890906	<--		
	WO 1989-SE475	A	19890906	<--		
	US 1990-469442	B1	19900410	<--		
	US 1991-740371	B1	19910724	<--		
	US 1992-986943	A3	19921208	<--		
	US 1992-988389	A1	19921208	<--		
	US 1995-461341	A1	19950605	<--		
	US 1999-307813	A1	19990510			
	US 2001-781896	A1	20010212			

OS MARPAT 113:205515

AB Ophthalmol. compns. for topical treatment of **glaucoma** or **ocular hypertension** comprise, in an ophthalmol. compatible carrier, an effective amt. of a deriv. of PGA, PGB, PGD, PGE, or PGF having an .omega.-chain C13BC14DR2 [B is a single, double, or triple bond between C13 and C14; D = (un)substituted C1-10 chain optionally interrupted by O, S, or N; R2 = (un)substituted ring]. Thus, crude 15-(R,S)-17-phenyl-18,19,20-trinor-PGF2.alpha. (prepn. given) was esterified and purified by column chromatog. to give 15-(R)-17-phenyl-18,19,20-trinor-PGF2.alpha. isopropyl ester (I) in 46% yield. I (10 .mu.g) reduced **intraocular** pressure in healthy human volunteers to 11.2 mm Hg 8 h after administration (control = 15.1 mm Hg at 8 h). I and other prepd. prostaglandin derivs. all significantly reduced **intraocular** pressure without significant irritating effect (**ocular** discomfort); 2 of the derivs. caused little, if any, conjunctival/episcleral hyperemia in man.

ST prostaglandin deriv **glaucoma** treatment; PGF deriv **glaucoma** treatment

IT **Glaucoma (disease)**
(treatment of, with prostaglandin derivs.)

IT Prostaglandins
RL: PREP (Preparation)
(A, 18,19,20-trinor-, 13,14-dihydro-17-Ph, alkyl esters, prepn. of, for **glaucoma** treatment)

IT Prostaglandins
RL: PREP (Preparation)
(A, 18,19,20-trinor-, 15-dehydro-17-Ph, alkyl esters, prepn. of, for **glaucoma** treatment)

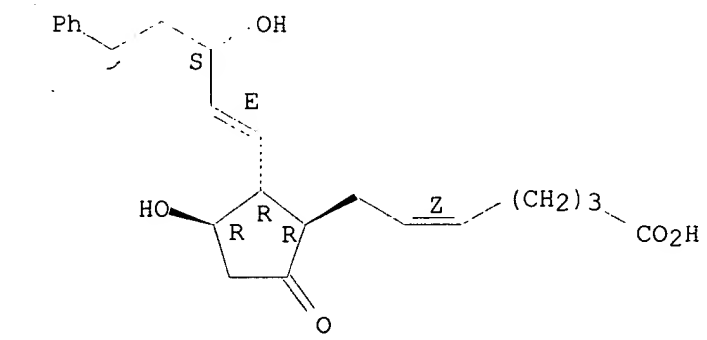
IT Prostaglandins
RL: PREP (Preparation)
(E, 18,19,20-trinor-, 13,14-dihydro-17-Ph, alkyl esters, prepn. of, for **glaucoma** treatment)

IT Prostaglandins
RL: PREP (Preparation)
(E, 18,19,20-trinor-, 15-dehydro-17-Ph, alkyl esters, prepn. of, for **glaucoma** treatment)

IT Prostaglandins
RL: PREP (Preparation)
(F, 18,19,20-trinor-, 13,14-dihydro-17-Ph, alkyl esters, prepn. of, for **glaucoma** treatment)

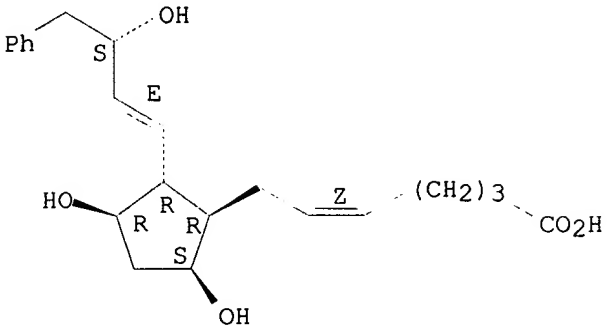
IT Prostaglandins
RL: PREP (Preparation)
(F, 18,19,20-trinor-, 15-dehydro-17-Ph, alkyl esters, prepn. of, for **glaucoma** treatment)
IT **38315-43-4**, 17-Phenyl-18,19,20-trinor PGE2 **38315-48-9** **38344-08-0** **51705-19-2**
RL: RCT (Reactant); RACT (Reactant or reagent)
(esterification of, in prepn. of prostaglandin deriv. for **glaucoma** treatment)
IT 38754-71-1P 41639-72-9P 52343-56-3P 88257-37-8P 130209-85-7P 130273-88-0P 130273-89-1P **130273-90-4P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction of, in prostaglandin deriv. prepn. for **glaucoma** treatment)
IT **130209-75-5P** **130209-76-6P** **130209-77-7P** **130209-78-8P** 130209-79-9P **130209-81-3P** **130209-82-4P** **130209-83-5P** **130209-84-6P** **130225-92-2P** **130273-87-9P**
RL: PREP (Preparation)
(prepn. of, for **glaucoma** treatment)
IT 31752-99-5 130209-80-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, in prepn. of prostaglandin deriv. for **glaucoma** treatment)
IT 41162-19-0, Dimethyl-2-oxo-4-phenylbutyl phosphonate 52344-42-0 61263-11-4, Dimethyl-2-oxo-6-phenyl-hexylphosphonate
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, in prostaglandin deriv. prepn. for **glaucoma** treatment)
IT 75-30-9, Isopropyl iodide 41029-44-1, Isopropyl triflate
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with prostaglandin, in prostaglandin deriv. prepn. for **glaucoma** treatment)
IT **38315-43-4**, 17-Phenyl-18,19,20-trinor PGE2 **38315-48-9** **38344-08-0** **51705-19-2**
RL: RCT (Reactant); RACT (Reactant or reagent)
(esterification of, in prepn. of prostaglandin deriv. for **glaucoma** treatment)
RN 38315-43-4 HCAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R)-3-hydroxy-2-[(1E,3S)-3-hydroxy-5-phenyl-1-pentenyl]-5-oxocyclopentyl]-, (5Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



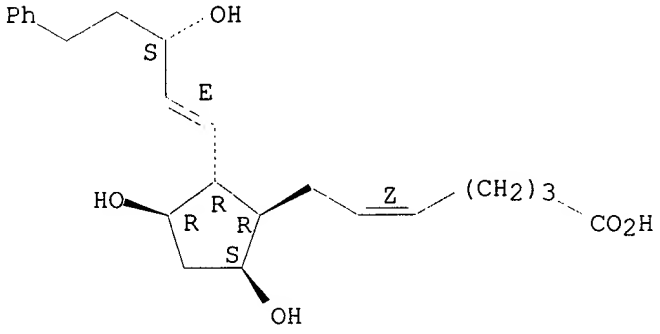
RN 38315-48-9 HCAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(1E,3S)-3-hydroxy-4-phenyl-1-butenyl]cyclopentyl]-, (5Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



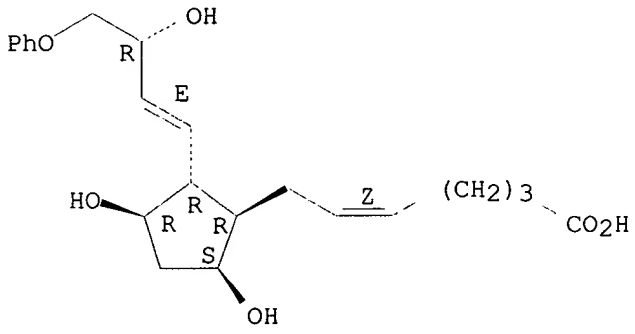
RN 38344-08-0 HCAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(1E,3S)-3-hydroxy-5-phenyl-1-pentenyl]cyclopentyl]-, (5Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 51705-19-2 HCAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(1E,3R)-3-hydroxy-4-phenoxy-1-butenyl]cyclopentyl]-, (5Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

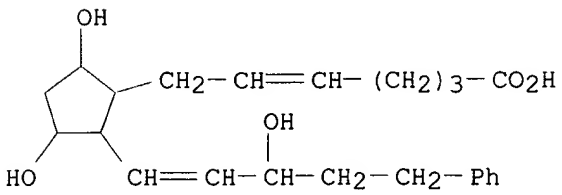


IT **130273-90-4P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and reaction of, in prostaglandin deriv. prepn. for **glaucoma** treatment)

RN 130273-90-4 HCAPLUS

CN 5-Heptenoic acid, 7-[3,5-dihydroxy-2-(3-hydroxy-5-phenyl-1-pentenyl)cyclopentyl]- (9CI) (CA INDEX NAME)

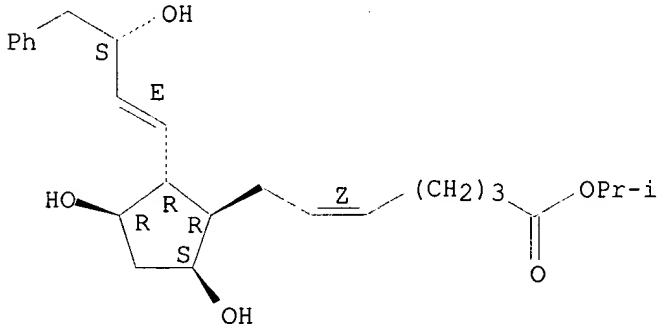


IT **130209-75-5P 130209-76-6P 130209-77-7P**
130209-78-8P 130209-81-3P 130209-82-4P
130209-83-5P 130209-84-6P 130225-92-2P
130273-87-9P
RL: PREP (Preparation)
(prepn. of, for **glaucoma** treatment)

RN 130209-75-5 HCAPLUS

CN 5-Heptenoic acid, 7-[3,5-dihydroxy-2-(3-hydroxy-4-phenyl-1-butenyl)cyclopentyl]-, 1-methylethyl ester, [1R-[1.alpha.(Z),2.beta.(1E,3S*),3.alpha.,5.alpha.]]- (9CI) (CA INDEX NAME)

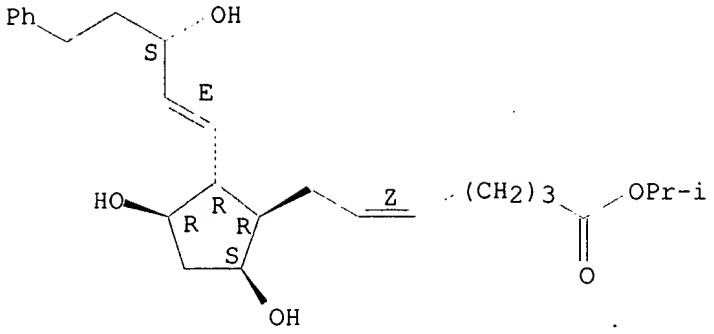
Absolute stereochemistry.
Double bond geometry as shown.



RN 130209-76-6 HCAPLUS

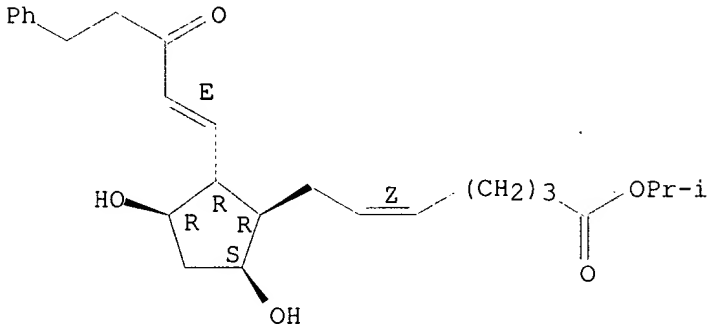
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(1E,3S)-3-hydroxy-5-phenyl-1-pentenyl]cyclopentyl]-, 1-methylethyl ester, (5Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



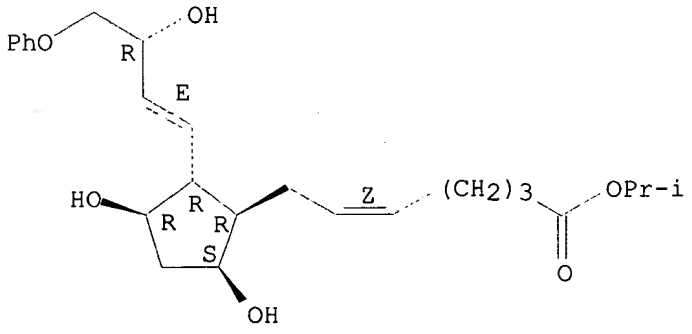
RN 130209-77-7 HCAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(1E)-3-oxo-5-phenyl-1-pentenyl]cyclopentyl]-, 1-methylethyl ester, (5Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



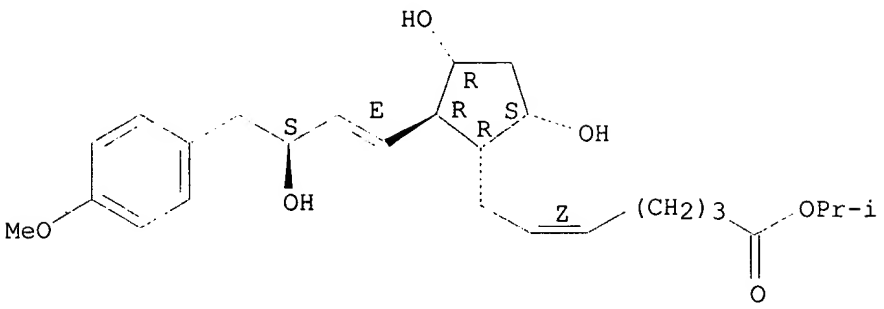
RN 130209-78-8 HCAPLUS
CN 5-Heptenoic acid, 7-[3,5-dihydroxy-2-(3-hydroxy-4-phenoxy-1-butenyl)cyclopentyl]-, 1-methylethyl ester, [1R-[1.alpha.(Z),2.beta.(1E,3R*),3.alpha.,5.alpha.]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



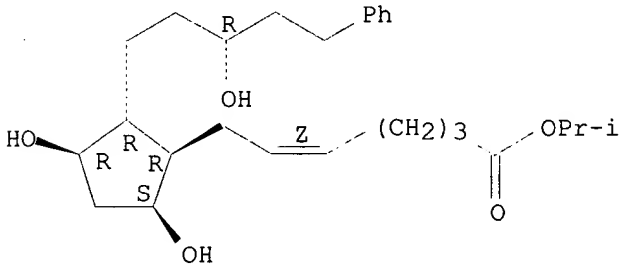
RN 130209-81-3 HCAPLUS
CN 5-Heptenoic acid, 7-[3,5-dihydroxy-2-[3-hydroxy-4-(4-methoxyphenyl)-1-butenyl]cyclopentyl]-, 1-methylethyl ester, [1R-[1.alpha.(Z),2.beta.(1E,3S*),3.alpha.,5.alpha.]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



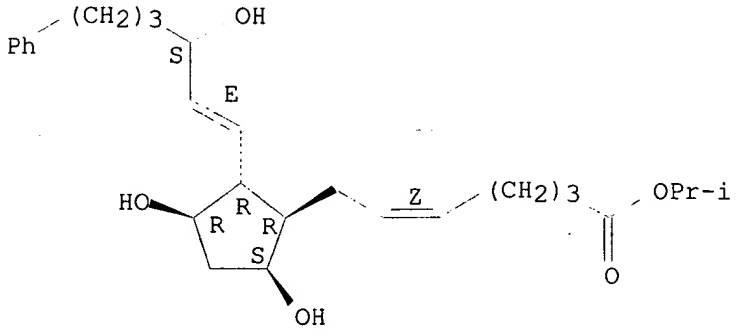
RN 130209-82-4 HCAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R,5S)-3,5-dihydroxy-2-[(3R)-3-hydroxy-5-phenylpentyl]cyclopentyl]-, 1-methylethyl ester, (5Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



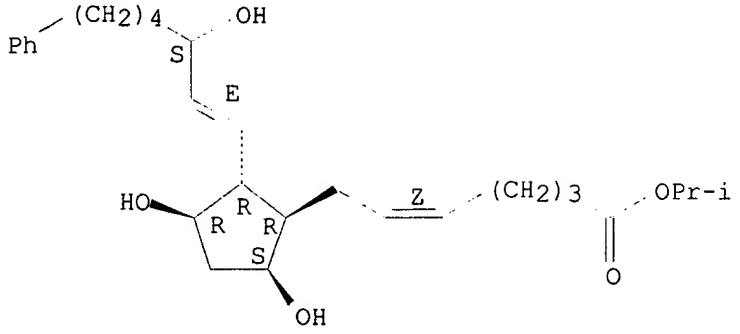
RN 130209-83-5 HCAPLUS
CN 5-Heptenoic acid, 7-[3,5-dihydroxy-2-(3-hydroxy-6-phenyl-1-hexenyl)cyclopentyl]-, 1-methylethyl ester, [1R-[1.alpha.(Z),2.beta.(1E,3S*),3.alpha.,5.alpha.]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



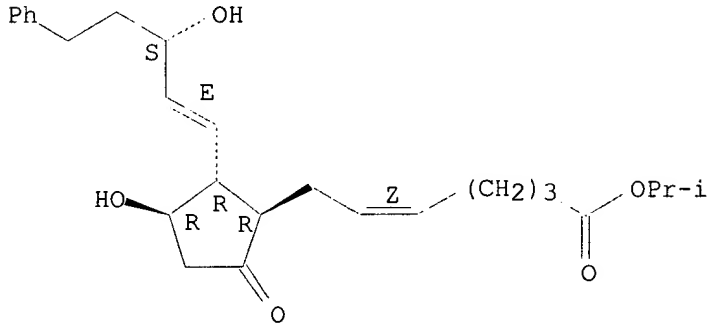
RN 130209-84-6 HCAPLUS
CN 5-Heptenoic acid, 7-[3,5-dihydroxy-2-(3-hydroxy-7-phenyl-1-heptenyl)cyclopentyl]-, 1-methylethyl ester, [1R-[1.alpha.(Z),2.beta.(1E,3S*),3.alpha.,5.alpha.]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



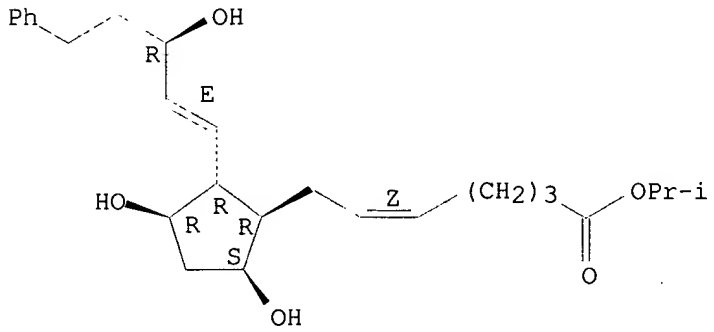
RN 130225-92-2 HCAPLUS
CN 5-Heptenoic acid, 7-[(1R,2R,3R)-3-hydroxy-2-[(1E,3S)-3-hydroxy-5-phenyl-1-pentenyl]-5-oxocyclopentyl]-, 1-methylethyl ester, (5Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



RN 130273-87-9 HCAPLUS
CN 5-Heptenoic acid, 7-[3,5-dihydroxy-2-(3-hydroxy-5-phenyl-1-pentenyl)cyclopentyl]-, 1-methylethyl ester, [1R-[1.alpha.(Z),2.beta.(1E,3R*),3.alpha.,5.alpha.]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



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